

Lizard Protector Administrator

Product Manual for Windows

Version 2.0 -Revision 1.20 www.LockLizard.com





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Chapter 1: Introduction

Lizard Protector is a simple to use yet extremely secure application enabling you to protect, publish and license your information, whether is PDF, Microsoft Word or HTML documents, web pages, e-learning or online training courses, or images. Using Protector you can control precisely who can view your protected information and what they are authorized to do with it.

This manual tells you how to install and configure the administrator application that is used to secure files, and how to use the web based licensing control system (the administration system) that is provided to add customers and then license them to use the information that you have protected.

It also includes a section on FAQs when using or running the application, and in the Appendices gives some suggestions on how small and large organizations may approach planning to use the system.

The administrator application is used to assemble and then protect the files that will make up a secure product (a training course, web portal, etc.). Here you set administration features such as where secured output files are to be stored, the message or web page that is displayed if the customer is not licensed, the splash screen that shows before the first protected file loads (if any), and the message or web page that is displayed when the product is no longer viewable (expires).

Protecting information is a simple matter of importing your files into the administrator GUI and pressing a button to protect them. You can specify the precise controls applied to your information that determines what a user can do with the files you protect – e.g. you can ensure that there is no copying, printing, or saving of your information in an unencrypted or uncontrolled form and that information expires on a specific date or after a number of days use. Information can be published on its own or as part of a publication for simple administration.



In the administration system you are able to add, suspend or delete customers, and assign products and/or publications to individual customers. You can also see if a customer has activated their license, and the IP address they used, as well as any IP addresses that tried to register and failed.

Before your customers can view your protected information they must first download the free Lizard Protector viewer software and get their license key from you. Then they can read the information you have protected for them. The license key you issue to them is only valid for a one-time use, so if your customers install the software, register it, and then try to give the license code to other users, it will not work again unless you approve it.

1.1 File types supported

Lizard Protector will protect the following file types:

- HTML
- HTM
- GIF (static and animated)
- JPG
- PNG
- CSV
- TXT
- PDF **
- DOC **

** PDF and DOC files are supported by first converting them to HTML with Lizard Protector's built in PDF to HTML and Word to HTML converters. Please see [Chapter 7](#), Conversion Tools, for more information.



1.2 Encrypting information, products and publications

LockLizard uses US Government strength encryption, the AES algorithm, with a 256 bit key length, in order to protect your information from being stolen or pirated.

Information can either be encrypted either as a product, or as part of a publication. A product is a series of one or more files that make up a document, training course, web site, etc. A publication can consist of one or many products.

If you choose to publish all your information as separate products then each product will have it's own encryption key. However, where customers are purchasing subscriptions to publications (or a series of e-learning courses) they expect to register their subscription once and then be able to read each issue as it arrives without having to connect to the administration server to retrieve a new key for every product they receive in the series.

To deliver this operational flexibility, if a product is protected as part of a publication then the encryption key of the publication is used to protect it rather than generating a new random key. This means that the customer is able to immediately use a new issue regardless of how you ship it to them (e-mail, web link, CD-ROM for instance) and without having to connect to the administration server every time a new product in that publication arrives (unless of course you specifically make this a requirement).

Of course if you send them a product that is not part of a publication then they will have to connect to the administration server to retrieve the new key.

Controls are applied at the product level, although you can protect different parts of a document, web site, etc. by saving them as different products. This means you can publish information together in a single web site or CD-ROM, and customers only have access to the items they are authorized to use.

Internally in an organization for example, different departments may have rights to view different parts of the same product. In the same product you can even encrypt some files but not others, so ebook publishers may for example use this method to let anyone view the first chapter for free before they decide to purchase the full book.



This more closely matches your need to control information rather than assuming that all customers have the same rights for every document, course or web site that you make available to them. You can publish the same information more than once, applying different controls to each publication. Expiry can be controlled at both the product and the customer level.

LockLizard provides a secure exchange mechanism in order to transfer the required key down to the customer's desktop at the same time as validating the customer's authorization to receive the key. Whilst we use public key technology, no key management is required from you as the publisher or by your customers, as it is all handled transparently by the licensing system.

Keys are seamlessly delivered to your customer's computers, locked to the individual computer (so they can't be copied and shared) and stored in encrypted form. There are no passwords to enter, manage, compromise, forget or pass on to others so the system is not open to password attack. There are no certificates to revoke when you want to terminate a customer's access or any other PKI complexity and you do not have to obtain PKI certificates from any third party.

1.3 Customer and Product expiry

Instant revocation for distributed information and persistent version control

Lizard Protector gives you total control over when your customers and your products expire. Your customers, for example, may subscribe to one of your publications for a year, and all products in that publication are accessible to them for a year. After that year, your customers will still be able to view their existing products, but not any new products that are published after their subscription period has ended, unless of course they pay for another year's subscription.

In addition you can control product expiry. Regardless of your customers subscription to your publications you may have certain products that are time sensitive and must not be viewable after a certain date (service manuals for instance). This feature also ensures that only authorized or current versions of products are used after publication because the obsolete versions can no longer be accessed. You may also want to provide access to products for a limited number of days so that customers can sample your courses, ebooks,



etc. before purchasing them.

You can also force your customers to connect to the administration server (happens transparently) before they view your protected information. This can be every time they want to view your products or after a certain number of days. If you choose a number of days then after the length of time you set has passed your customers must go back online to gain further access. Using this option you can also instantly revoke customer access to previously distributed products by suspending their rights or deleting their customer record.

1.4 Product Accountability / Auditing

The administration system records the date, time and IP address of your customers when they first connect to the server to obtain their decryption keys.

You can therefore maintain accountability with regard to the use of your protected information because you know precisely when your customers have viewed your information and you know exactly what they can or can't do with it.

1.5 Complete off-line Protection

Control properties are retained with each individual file so there is no need for your customers to connect to the Internet in order to view your protected information (assuming of course that they have the correct decryption key stored on their computer). Whether you want your customers to connect to the Internet or not to use your information is a decision you make when protecting your information.

Once a file has been issued the controls locked into it cannot be changed. You can only cease rights to the file and publish it again.



1.6 Customizable Message Text

When you set up customer accounts on the administration server, your customers are automatically sent an email with a download link to the viewer software and their license file. This email is automatically customized with your name and email address in it so your customers know who to contact if they have any problems accessing your information.

You can specify the text that will be displayed if a customer does not have the correct decryption key present to view your protected information - e.g. where they can purchase a license from or who to contact, or you can have them sent to a web page that has this information.

You can also specify what text is to be shown to a customer a number of days before their license expires.

1.7 Features Summary

Complete and secure control over information usage - viewing, printing, copying, saving, expiry, etc. Prevent or allow the following options:

- Viewing – including controlling the number of times allowed
- Printing – including controlling the number of times allowed
- Copying information (text only)
- Saving information in unencrypted form (always prevented)
- Use of third party screen grabbers
- Prevent or allow use in thin client environments
- Windows print screen is automatically disabled to prevent users taking screenshots of your products.
- Customer and information expiry - you control how long your customers are buying your services for and therefore how long they can view your information



- Instant user revocation - terminate your customer's access to information instantly
- Built-in PDF to HTML converter
- Built-in Word to HTML converter
- Bullet proof protection - public key technology and US Government strength encryption (AES 256 bit)
- No passwords to send, manage, enter, forget or pass on to others
- Encryption at the file level (image, text) enables you to encrypt parts or all of your information using the same or different encryption keys
- Complete off-line protection - no need to connect to the Internet to view existing information
- Offline / online access management - control how long a customer can access your information offline before their license must be checked
- Real-time web based licensing control - issue and manage customers and information online
- Transparent real-time web based customer authorization
- Persistent end-to-end protection throughout information life-cycle
- Full control over information security inside or outside of the firewall, online and offline
- Customizable splash screen, message text and display URL
- Quick set up - existing customer information can be imported and no configuring of servers is required
- Simple to protect information, simple to use, simple to administer
- Complete integration with your e-commerce system
- Completely managed system (fully hosted by us) or hosted on your own server
- No limit to the number of files you protect or the number of customers that subscribe to your information
- FREE Viewer software (nothing extra for users to purchase)



Chapter 2: Installation

2.1 Pre-requisites

Lizard Protector Administrator is compatible with the following platforms:

- Windows 2000
- Windows 2003
- Windows XP
- Windows Vista
- Windows 7
- Windows 8

You must have Windows administration privileges in order to install and use the Administrator software.

Installation is a two stage process – installing the administrator software and registering it.

2.2 Installing the Administrator software

Double-click on the LL_Protector_Admin.exe file in Windows Explorer to start the installation process.

The installation process is straight-forward and it takes less than a minute from start to finish. A wizard guides you through the installation process.

Screenshots of the installation process are shown below and are self-explanatory.



Diagram 1: Protector Administrator Setup Wizard



Diagram 2: Protector Administrator License agreement

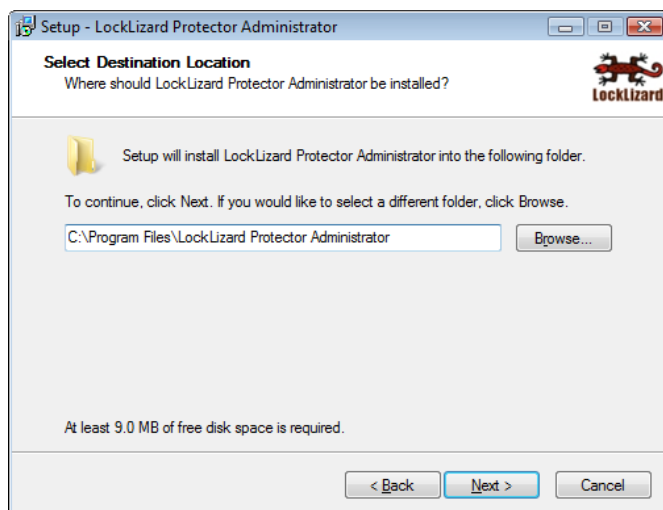


Diagram 3: Protector Administrator Installation folder

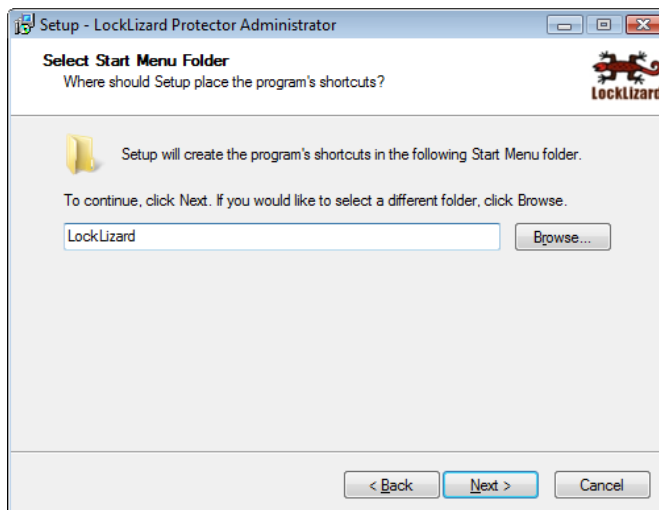


Diagram 4: Protector Administrator Start Menu folder

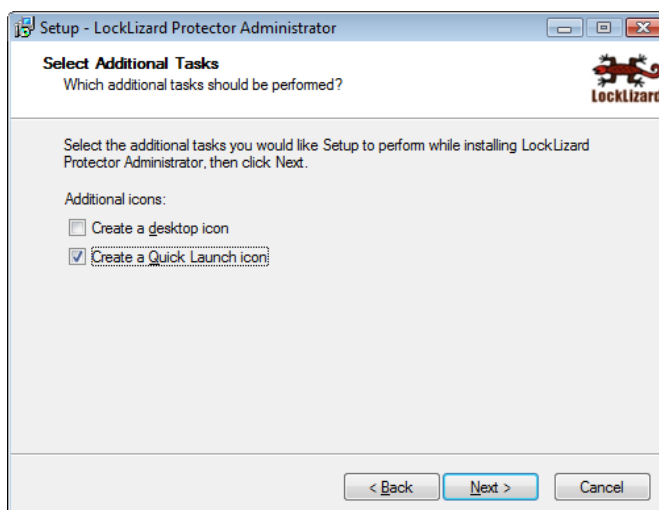


Diagram 5: Protector Administrator icon selection

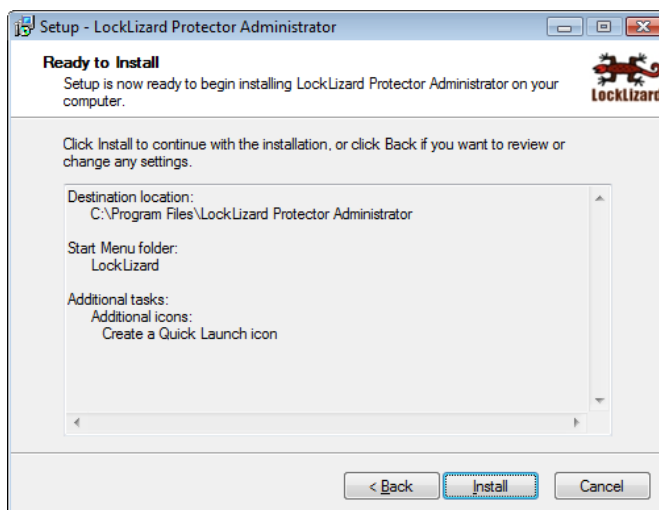


Diagram 6: Protector Administrator Installation settings



Diagram 7: Protector Administrator Installation complete

2.3 Proxy Settings

On some systems, because of internal security requirements, firewall controls are set to prevent internal applications from connecting directly to external web addresses.

Further, to help prevent attacks from hackers, and prevent keyloggers and other programs commonly used by hackers, viruses and worms to send confidential internal data to outsiders, internal systems may use port addresses on the firewall that are not the standard ports.

Finally, the firewall may require users who wish to use external services to authenticate themselves to the firewall before they are able to use external services.

To support these higher security requirements, Lizard Protector allows you to configure your proxy settings into both the Administrator and Viewer programs.

Protector Administrator automatically picks up existing proxy information from Internet Explorer if it is available. If your proxy requires authentication a dialog box will be displayed where you must enter your proxy username and password.



Diagram 8: Proxy authentication dialog

There may be circumstances when you need to manually override these settings before you can register and use the Administrator software.

To manually configure proxy settings right click on the Windows Start menu and select All Programs > LockLizard > Lizard Protector > Administrator > Proxy Settings.

The following dialog is displayed.

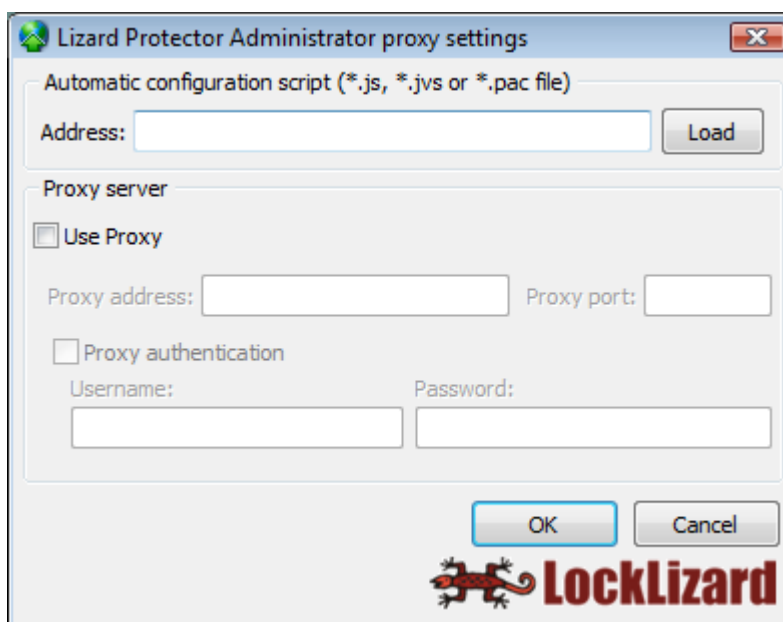


Diagram 9: Protector Administrator proxy settings



This dialog enables you to set the proxy from a configuration script or by manual entry.

2.3.1 Automatic configuration script

The Administrator can be configured using a proxy administration PROXY.PAC file (a plain text file containing a JS function that will automatically configure the proxy settings to be used). In the 'Address' field, type in the full path of the Proxy.pac file you want to use (either an http:// path or a local file) and then press the  button.

Below is an example proxy.pac configuration file that will make the viewer (or Internet Explorer) go via a local proxy server if a connection is made to www.locklizard.com:

```
function FindProxyForURL(url, host)
{
if (shExpMatch(url, "http://www.locklizard.com*"))
    return "PROXY 192.168.1.1:8080";
else
    return "DIRECT";
}
```

2.3.2 Proxy server manual entry settings

To manually enter proxy settings, check the 'Use proxy' checkbox and then enter the address the proxy requires in the 'Proxy address' field.

Your IT support group will be able to tell you the address you should enter here. Also, ask them if you need to enter a specific port address.

Lizard Protector uses port 8444 or 443 to securely address (using HTTPS) the LockLizard administration server depending on the server you are connecting to. If your internal system requires the use of a different port for the connection you must enter it in the Proxy port box.

NOTE: If you purchased Lizard Protector before the 6th February 2007 then the LockLizard admin server IP address is 82.165.43.29 or <https://www.locklizard->



license1.co.uk:8444/LockLizardLicensing. This server uses port 8444 for secure traffic and port 8080 for non-secure traffic.

If you purchased or are evaluating Lizard Protector after the 6th February 2007 then the LockLizard admin server IP address is 87.106.7.187 or <https://www.locklizard-license2.co.uk/LockLizardLicensing>. This server uses port 443 for secure traffic and port 80 for non-secure traffic.

If your internal control system requires authentication at the firewall then check the 'Proxy authentication' checkbox and enter in the fields provided the username and password that your IT department have allocated to access the firewall service.

If you do not supply the Proxy authentication data (username/password) but the proxy server requires authentication, a dialog box asking for the username and password will be automatically displayed when Protector Administrator tries to connect to the Internet.

If the "Use Proxy" check box is not checked, then Protector Administrator will use the Internet Explorer settings for the Internet connection (assuming the proxy settings are defined in IE).

This utility is used for both the Administrator and Viewer products. If both are being used on your PC then you only need to run the utility once because it configures both the Administrator and Viewer applications at the same time.

Once you have registered the Administrator and Viewer software they do not need the proxy settings again unless someone decides to change your internal proxy settings and they cannot be automatically picked up by the Administrator/Viewer software.



NOTE: FOR EVALUATORS

If you are evaluating Lizard Protector (free 15 day trial) then Protector Administrator uses port 443 (using HTTPS) to securely address the LockLizard administration server.



2.4 Registering the Administrator software

Before you can start using Protector Administrator you must first register the product with the online licensing control system. In order to register, your computer must be connected to the Internet.

Regardless of whether you are evaluating, or you have purchased the software, you will have been sent an email containing your license file.

The license file is contained in a zip file (protector_license.zip) so that it does not get stopped by firewalls. Double-click on this zip file in your email application, select the 'Open It' option, and then the OK button. Then double-click on the protector_license.plw file.

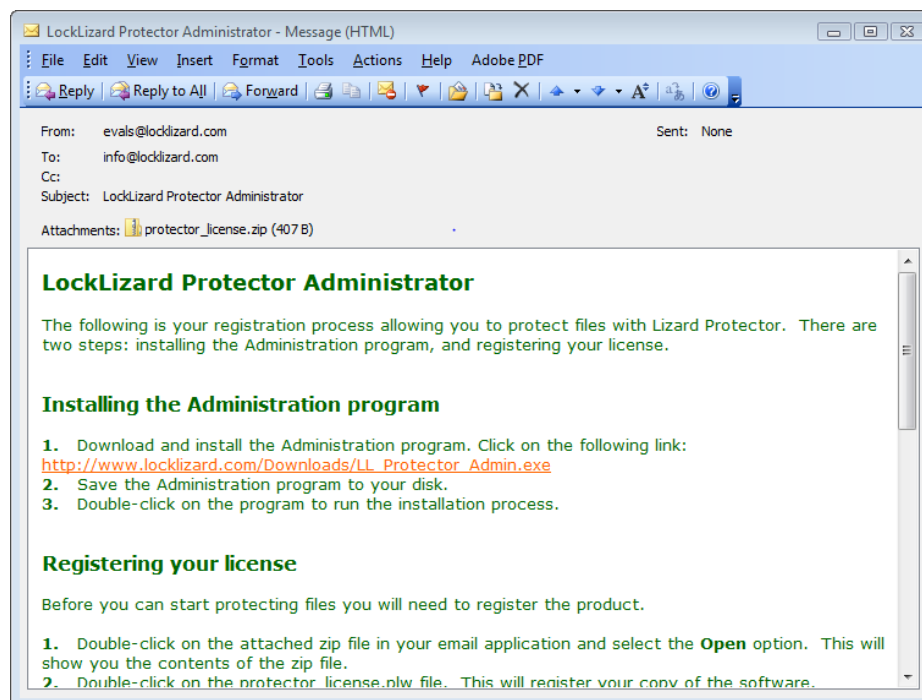


Diagram 10: Administrator Registration Email and License file

This will start the registration process and confirm your publisher record in the administration system.

On successful registration, a message dialog is displayed, and the Protector Administrator GUI is invoked.



You are now ready to start protecting your information.



NOTE: Firewalls may rename file extensions

Some firewall products may have renamed the zip file and you may have to approve running it to reveal the license file contents. Zone Alarm for example, renames zip files with a .zm9 file extension. You can either double-click on this file and Zone Alarm will run asking you whether you want to view the contents, or you can save the file to disk, rename the file extension back to .zip, and then double-click on it.

If you are not connected to the Internet at the point of registration then you will receive an error message and you will have to start the process again.



NOTE: Backup your license file

Please make sure you retain a copy of the license file in case you need to recover the system after a disk crash, or when updating to a new system, when you will need to register again.



Chapter 3: Design Considerations

IT IS IMPORTANT THAT YOU READ THIS SECTION OF THE MANUAL BEFORE PROTECTING ANY CONTENT

3.1 Introduction

It is essential to understand that the LockLizard Protector Viewer is not a browser into which functionality has been 'plugged.' The Viewer is specifically designed to provide a secure environment in which to handle the range of file objects that are secured. It makes use of certain browser library functions supplied by Microsoft Internet Explorer versions 6 and above that will be present on all current Windows systems from Windows 2000 onwards. The file types supported for protection are:

htm, ,html, gif, jpg, png, csv, txt.

File types that can be accepted by the Viewer, but which are not protected at all are:

javascript, css.

These files will be processed by Protector, but their content will not be encrypted.

3.2 Use of relative and absolute links to objects

Lizard Protector is not able to search, load and verify nested and variable path objects in javascript and css files that may be satisfied at run time. The design of Protector anticipates a static web site construction with all the links satisfied.



This means, very simply, that Protector requires that all the links to nested or embedded files are expected to be absolute – for example, `http://www.locklizard.com/Images/filename.gif` (in this context a web address is also an absolute link and references to other web locations are managed).

However, Protector will not resolve variable path objects on-the-fly, unlike the standard web browser, and even if it did, the relative objects would not necessarily have been protected because they could not have been identified correctly during the protection process since they were not present and therefore the links could not be resolved.

So web page design to manage secured objects must ensure that they are accessed by absolute links and not nested in javascript or css file objects that will not have been processed.

3.3 Quality of code

It is important that the implementation of code (htm, js and so on) used for web pages must not contain any errors. Whilst the normal browser will, as standard, ignore such things as javascript errors when it is processing files, Protector Viewer will not. As a matter of security, Protector requires that code to be processed does not contain errors since they could contribute to a security breach.

[Designers must evaluate their code prior to protecting information by viewing the proposed web site \(before protecting\) it in Protector Viewer, and stepping through it noting reported errors.](#)

In larger sites this may be operationally inconvenient or require too much manual intervention. In those cases you can use a web validator to crawl over the proposed web site, especially checking the javascript code, in order to fully validate the code. There are a large number of freeware and paid for products to do this so we cannot make any specific recommendations for a given situation.



3.4 Performance considerations

The use of encryption in web based systems can potentially create performance constraints. You will be aware that the commonest form of web encryption, SSL, is switched on and off to that it processes the minimum possible number of pages. Also, typically on web servers, specialist hardware is required in order to 'accelerate' or reduce the impact of encryption on the web server itself.

LockLizard Protector uses a different strategy in order to reduce the impact of encryption on both the web server and on client response times. We now discuss this in more detail.

Protector uses a strategy that information is encrypted once, offline, so that when encrypted files are forwarded by the web server there is a zero impact on web server performance. This avoids the difficulties of providing specialized hardware to support encryption activities, or the possibility of server melt down under heavy load conditions. This is why Protector was developed to address static web site structures and not dynamic ones.

At the client side it is inefficient to attempt to carry out decryption on the fly as blocks of encrypted data arrive. It is possible to develop a buffered streaming approach, but that can have serious memory demands, and can require the opening of temporary files as well as requiring caching of downloaded objects. From the client perspective (the Secure Viewer) it is essential to cache all encrypted information before attempting the decryption. Encryption and decryption are very CPU intensive processes (hence why you try to avoid carrying out those activities on web servers where it can impact on performance) which compete for machine resource (usually demanded preferentially especially on Windows operating systems) for servicing network connections.

As a result, the strategy of the Viewer is to download all the information that it will require in order to satisfy all the pages and links that it appears likely to require before it starts decrypting information to present on-screen to the client.



This has no impact at all when a secured web site has been provided to a client on a CD/DVD/Flash Drive or has otherwise been loaded onto the client's hard drive, and this guidance may be ignored by designers who are following that strategy when supplying controlled information to their customers/users. If you are operating a protected service from an online web site you **MUST** take into consideration the following guidance.

The web site designer must consider how they design their site so that it consists of a 'series' of sub sites and not an single entity. If the designer creates a single static web site that is a single entity, protected as a single product, then the client will not be able to view any of the site until the entire site has been downloaded over the web onto the client's hard drive! If it is a small site this may be of no importance, but if it is several hundred pages and hundreds of images then the impact will be significant.

The web site designer must consider, in order to achieve reasonable performance characteristics, how to subdivide their site up into related units of information, and make sure that each related unit of information has its own 'gateway' page by which that area is primarily accessed. Then, when protecting the site, rather than protecting the whole site (typically done by referencing the master landing page index.htm and letting Protector sort out all the links and interdependencies from there on) each sub-section of the site should be protected according to its own gateway entry, but the Product **MUST** be published to one single publication.

The effect of adopting this strategy is two fold.

From the client side the delay whilst caching all the associated files to the entry point is reduced so they get to the first viewable page in a sensible time (waiting for a whole site to download might be very similar to waiting for Godot, especially if your broadband service is not that great, and not all of us are on a T1 circuit).

Also from the client side, once file objects have been downloaded and cached they will **NOT** be downloaded again unless they change, so the performance at the client side will increase significantly following the original download.



However, please note that whenever a product is opened, a check is made at that time for file updates, and not on-the-fly as page items are loading. The client is advised that an update check is being made.

The reason for protecting to the same publication is a simplification for administrative purposes. It means that when allocating licenses to customers/users you only need allocate them to a publication, and the LockLizard infrastructure will automatically sort out the provisioning of decryption keys and so on, without you or the customer/user needing to take any action at all.

Please note: If you are provisioning a 'layered' web site, where different classes of customers/users have access to different parts or portions of the web site or have different information revealed, then you **MUST** design the site so that each layer is a separate Product. Where layering is required, each layer **MUST** correspond to a specific publication. That way, when authorizing customers/users you are able to connect them to the appropriate publications.

The effect of these steps is to minimize the amount of administration that will be required whether you are administering the system manually or selling complex services directly from a web site. It also minimizes the performance impact on both your web server, and on the client side, so that the client experience is as seamless as possible.

3.5 Multimedia interfaces – operational considerations

This guidance is given for flash files, but it is equally applicable to any multimedia files that are included as part of the protected site.

When running any browser or Viewer based system, a file to be displayed must be downloaded/cached before it can actually be displayed. This is particularly important where information has been encrypted, because you cannot possibly know if the encrypted file is valid until you have checked the whole of it.



Where you have complex page structures (text, images, htm and so on) then all of those elements have to be decrypted and checked before they can be displayed. This is very different from, say, an encoded movie channel, where if anything becomes corrupted then the channel just fails.

So minimizing the size of any multimedia files is also very important. When a browser encounters a multimedia file (flash, mov and so on) it pauses whilst it downloads the file before it is able to display it. It does not matter whether the browser is going to use its default display mode or invoke a client preferred plugin. Until the file is downloaded/cached in its entirety there will be a pause at the client end. So the larger the object that has to be downloaded at this time, the longer the pause that the client experiences. So whilst a 4 Mb file download will likely be tolerated by the client, a 100 Mb download will likely not be tolerated. Unless you warn them that this is not instant response, or even cup of coffee response, but a lunch break response! Some useful flash compression software can be found at

http://www.hootech.com/mp3_to_swf_converter/

Because of the structure of encrypted information it cannot be verified until the whole encrypted file has been received. So unlike streaming systems (film, music) which start playing as soon as sufficient data have been received to provide a reasonable level of user experience, all the file must be downloaded before it can be opened and used.

Obviously, if the files have been distributed on a storage device (CD/DVD/flash drive) then performance will be much faster.

3.6 Multimedia interfaces – links and plugins

As with the use of links mentioned above, if javascript is being used to reference the multimedia file it needs to provide a direct link and not a relative one. Mp3 or mov files can be played, as long as the path is correct.



We recommended that you use an absolute path when calling a mp3 or mov file (so instead of trying to load /audio/file.mp3 use the form `http://domain.com/audio/file.mp3`). This is because the way plugins for mp3 or mov files operate can vary (unlike flash files, where you have to use the Macromedia plugin, and so there is a single defined interface and method of operation) and they may not properly handle a relative path (remembering that as far as the plugin is otherwise aware the protected HTML file is being loaded directly from memory and not from any storage location, and no temporary files are opened).

Since mp3, flash, and mov files cannot be protected you may wish to open these files in a normal browser so they are not loaded from memory but instead cached from disk. This will provide an enhanced user environment with content loading quickly in the browser (rather than slowly in the secure viewer). By using the `target="blank"` command you can force the opening of files in a browser (rather than the secure viewer) window. Example html code to perform this action is as follows:

```
<a href="http://domain.com/audio/file.mp3" target="_blank">
```

3.7 Other items for consideration

- 1) Adobe Flex generated SWF files CANNOT BE SUPPORTED because the Adobe plugin is not supported by Protector Viewer.
- 2) Javascript menus must use absolute paths. Javascript menus that change the menu item image when moving the mouse over it, will only work if the image path is absolute.
- 3) Forms will work in the Secure Viewer software and data can be filled in by users as normal.



Chapter 4: Protecting Information

4.1 Pre-requisites

Before you can protect information in PDF or Word formats it must first be converted to HTML format.

Lizard Protector Administrator has built in converters for this task. Please use them to convert those files to HTML so that they can be correctly handled by the Administrator application.

Please see [Chapter 7](#), Conversion Tools, for more information.

4.2 Maximum file size sizes supported

Lizard Protector Viewer, for security reasons, handles file decryption operations in memory only. No temporary or cache files are created. Depending on machine memory size, processor speed, and operating system this restricts the maximum size of file that can be processed.

We advise that you should not protect files greater than 12MB in size for reliable use across a wide range of clients. So no individual file (i.e. a jpg image, html page, or text file) should be larger than 12MB.



4.3 Lizard Protector Admin GUI

The Lizard Protector Administrator GUI protects files by applying encryption and digital rights management controls to them.

The Protector GUI is automatically displayed on successful registration. It can also be invoked from the Lizard Protector program group off the Windows Start menu. Off the Windows start menu select Programs > LockLizard > Lizard Protector > Administrator > Protect Content. The following GUI is displayed.

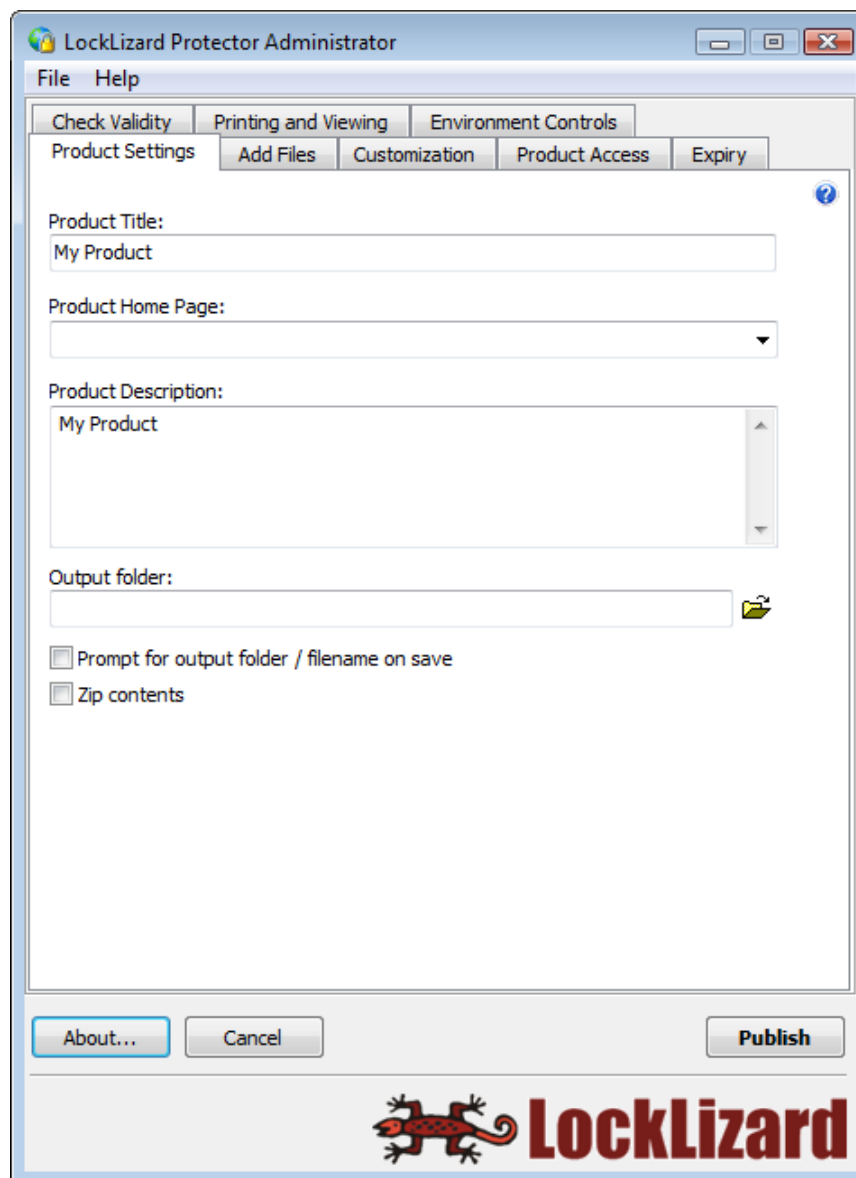


Diagram 11: Lizard Protector GUI



4.4 Protecting information

The individual tab dialogs and their entries are summarized below.

Product Settings

Here you enter information about the product - the product title, description, home page, and save location.

Add Files

Here you select the files you want to add to your product.

Customization

Here you enter splash screen information (what splash screen should be displayed and for how long) and your access denied message / URL.

Product Access

Here you specify who can access your content -whether it is to be made available to all customers, specific customers or those that subscribe to specific publications.

Expiry

Here you specify expiry settings (when content expires) and your expiry message / URL.

Check Validity

Here you specify how often users must connect to the server to validate their license.

Printing and Viewing

Here you specify whether content can be printed and if so, how many times. You can also specify the number of times content can be viewed, and control and enforce the viewer window size.

Environment controls

Here you specify whether users are allowed to use screen capture applications or whether you want to impose tighter screen capture controls. You can also prevent or enable viewing of content in thin client environments.



Once you have selected your files and rights management settings, you save and protect your product by pressing the Publish button.

Then finally, you can then use the web based licensing system to:

1. Add customer accounts
2. Manage products
3. Manage publications
4. Assign customers to product and publications

When protecting content please bear the following in mind the following restrictions imposed by the secure viewer application:



NOTE: Secure content restrictions

- 1) Copying, saving and modifying content is prevented at all times.
- 2) Form filling, annotations and screen readers are not supported.
- 3) Windows print screen is disabled by default, and it cannot be used by any programs whilst the Viewer remains active.
- 4) Print to file drivers (for example Acrobat distiller or One-Note) cannot be used when printing through the Viewer application.

Each tab is now described in more detail.



4.4.1 Product Settings

Here you can enter the product title, home page, and description, and the location where the product will be saved to.

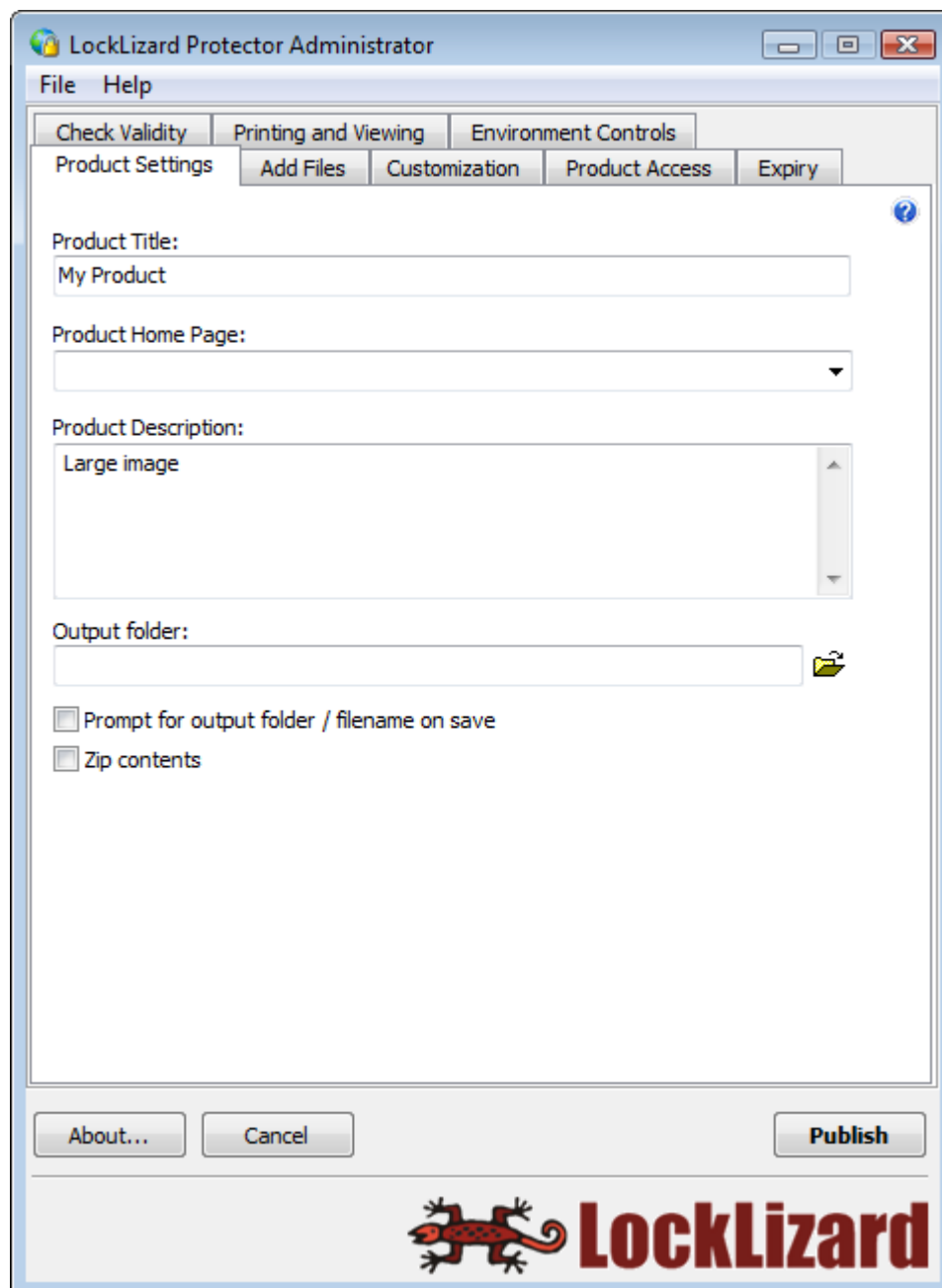


Diagram 12: Product Settings tab



4.4.1.1 *Product Title*

Enter a title for the product (group of files) that you are going to protect.

The title is used as a reference by the administration system. This group of files is saved as a product (.llp file) which can be opened in the GUI at a later date so you can see what rights you applied to files or which ones you protected. It also means you can quickly make changes to settings, and add, delete and modify files, without having to import the same files back into the GUI again.

The product title is also used as the product filename when you save and protect your information. It is displayed on the licensing system and is used to identify the product. (Please see Appendix 4 for choosing suitable titles if you do not have any internal standards or naming conventions.)

4.4.1.2 *Product Home Page*

You can choose to designate a particular page as the home page for the protected product, for example, index.html. If you designate a home page then users may click on the home page button  shown in the Viewer window and they will be taken directly to that page.

You might want to select a home page if you have a master index page or it is the logical home page of a web site.

4.4.1.3 *Product Description*

The information you enter here is for your personal use. It is not used by the administration system.

4.4.1.4 *Output folder*

The folder you select here is the location where your protected product and files will be saved.

Be sure to choose a different folder from the source files, preferably an empty folder unless you intend to add these files to an existing product or intend to publish several products together.



4.4.1.5 *Prompt for output folder / filename on save*

If you check this box then when you protect and save your files you will be prompted for a product filename and a folder where the protected files will be stored.

You may choose an existing location and filename or a new one.

4.4.1.6 *Zip contents*

If you check this box then when a product is saved, all of the files will be saved in a single zip file.

You may want to use this option if users are downloading your product from a web site (rather than viewing it directly from the Internet).



4.4.2 Add files

Here you select the files you would like to add to your product.

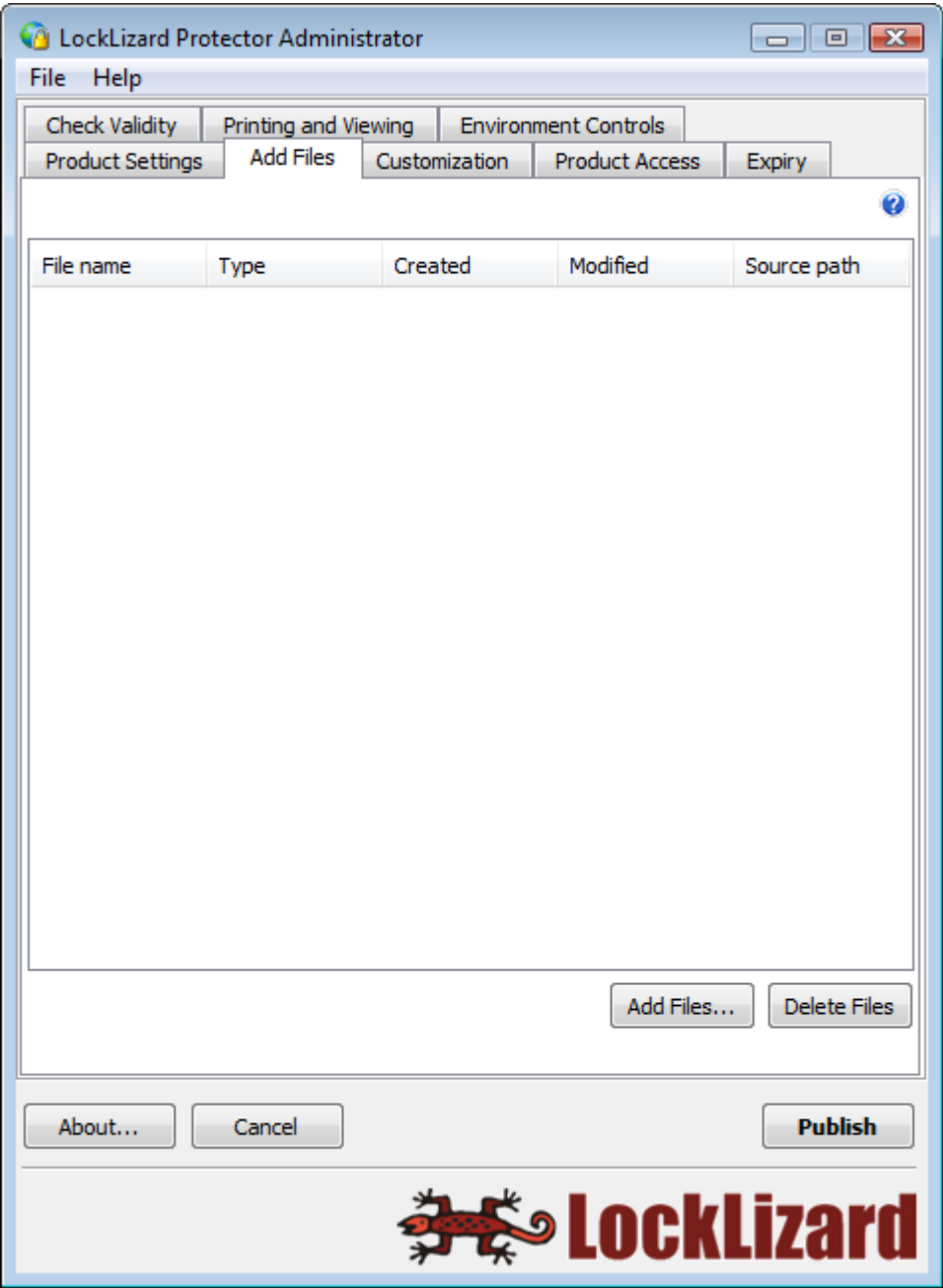


Diagram 13: Add files tab



To add files to protect click on the  button. The following dialog will be displayed:

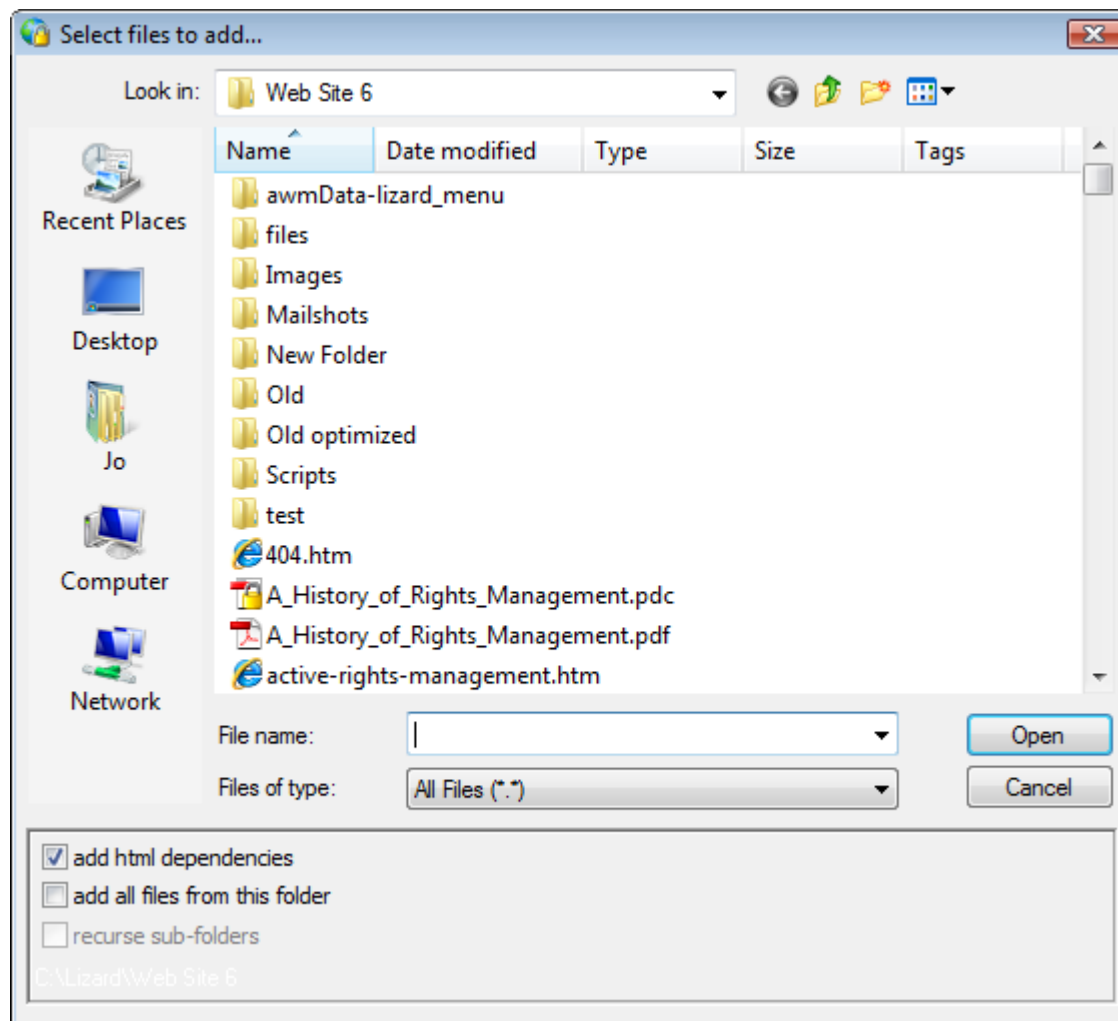


Diagram 14: Add Files dialog

Highlight the files you want to protect. You can use the CTRL or SHIFT keys on your keyboard and the left button of your mouse in the normal Windows way.

If you check the  **add html dependencies** check box then any file that is referred to in the selected html files (for example images, text files), will also automatically be protected. This saves you from having to work out what objects (images, etc.) make up the overall html file, particularly if you did not create the html pages yourself.



If you check the ☐ add all files from this folder check box then every file in that folder will be selected for protection. By default, checking this box also checks the ☒ recurse sub-folders check box that also processes all sub-folders and the files they contain. Make sure you uncheck the 'recurse sub-folders' if you do not want the contents of the sub-folders included.

Press the button to add the selected files. Once you have added your files the GUI will now look something like this.

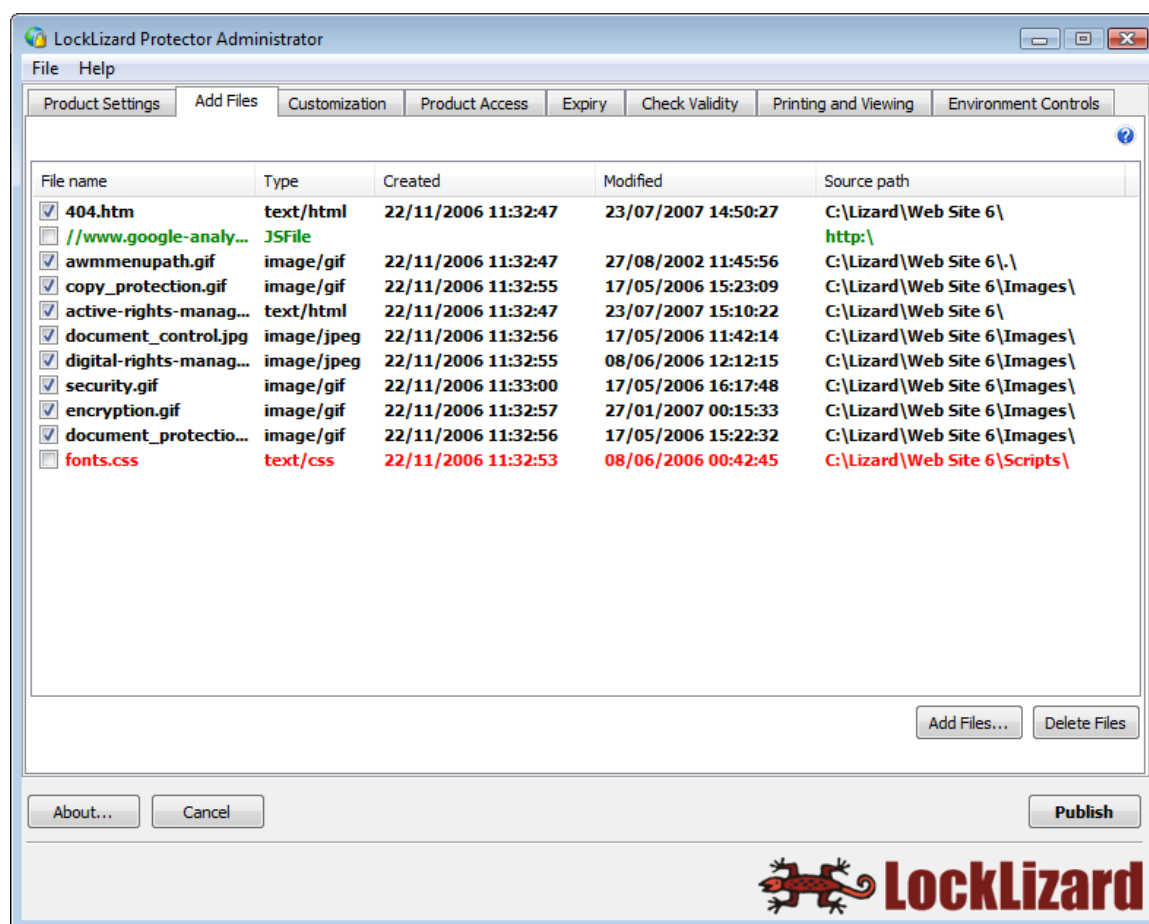


Diagram 15: Lizard Protector GUI with files added

If you uncheck a file in the GUI list it will NOT be protected but will be included in the build process (so it will get copied across to it's new location and the original folder structure will be maintained). For example, you may wish to protect only the text in your product or just some of the images. Some files, javascript for instance, do not normally contain information that is security critical if disclosed, so there is no value in protecting them.



Files that you uncheck, and therefore will not be protected, are always displayed in **red font**.

4.4.2.1 Resizing the GUI

Resizing the GUI to make it bigger will enable you to see more clearly the file information for the files you have added.

You can resize the GUI by placing your mouse cursor on one of the four corners of the dialog and stretching it accordingly by holding down the left mouse key and dragging the dialog outwards.

4.4.2.2 File types not supported

File types that are not supported by Lizard Protector are displayed in **red font**. These files cannot be protected but will be included in the build process so that the final product is complete and consistent.

This means that if you are protecting a web site for example, all the files and folders will be copied to their new location and so any dependencies (use of javascript menus, etc.) will be able to run correctly because the original folder structure is maintained. If you had not selected these files then they must exist in the correct locations for you to test that your protected product works as expected.

Files that are displayed in **green font** are external references to files (i.e. hosted on a web site and not locally on your disk) and cannot be protected.

4.4.2.3 Removing files from a product

If you want to remove files from a product (so they are not included in the build process) then highlight the files by left-clicking on them (you can also hold down either the CTRL or SHIFT keys to select multiple files) and then press the  button.

You can also right-click on the files and select the Delete Files option from the pop-up menu.



4.4.3 Customization

Here you can enter the message or URL that is displayed if a customer is not authorized to view your information. You also choose whether a splash screen is displayed when your product loads and for how long it is shown for.

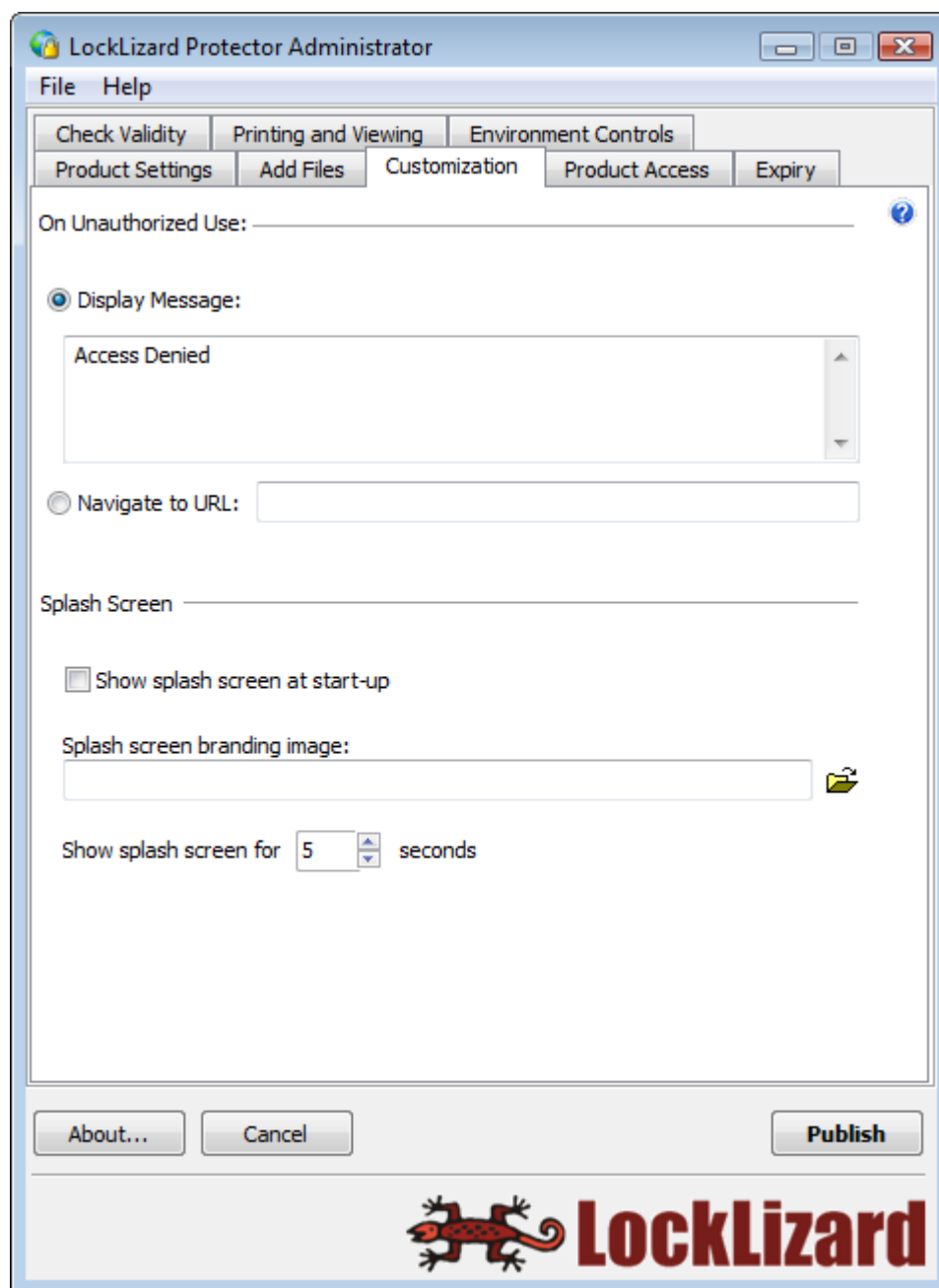


Diagram 16: Customization tab



4.4.3.1 *Display Message (on unauthorized use)*

In the 'Access denied' message field you can enter custom text that will be displayed if a customer does not have the correct key to view your product (and therefore needs to acquire a license from you). For example, "Please contact Jason Bourne on 877 432 1654 or email jbourne.abc.com to obtain a legal license to access this information". This facility allows you to solicit for additional business by providing your sales contact details to unlicensed users, if that is appropriate to your business model.

This information is specific to each protected product you create, so no matter where a user downloads the Protector Viewer from, if they double-click on one of your files and they do not have the correct key for your product, then they will see this message.

If a customer tries to open a protected file using a program such as Notepad (or similar character editor) they will also see this message at the top of the file in 'plain text'. So even if they don't have the Protector Viewer installed, provided you have entered appropriate text they will know who they should contact for a license.

4.4.3.2 *Navigate to URL (on unauthorized use)*

Enter a URL that users will be re-directed to if they don't have the correct key to view your product. The information that you display on that web page might be who to contact to purchase your information, or the actual purchase page for that product.

4.4.3.3 *Show splash screen at start-up*

Check this box if you want a splash screen displayed when the viewer loads.

4.4.3.4 *Splash image*

Browse for the image that you want displayed when the first file in your product is loaded by the viewer application. This image might be your company logo or an image that tells your customers they are about to view a protected product.



The splash screen is only displayed once (the first time a file in your product is loaded, not for every file that belongs to your product).

Supported image formats are PNG (without transparency) and JPG.

There is no limit to the size of the image but you may want to keep the final image size to a maximum of 640x480 pixels so that customers using low resolution monitors can still view the full image clearly.

4.4.3.5 *Show splash screen for n seconds*

Enter the number of seconds that the splash screen will be displayed for.

The default is set at 5 seconds.



4.4.4 Product Access

Here you choose whether all your customers have access to your product, or whether only those that have purchased specific products or publications can access them.

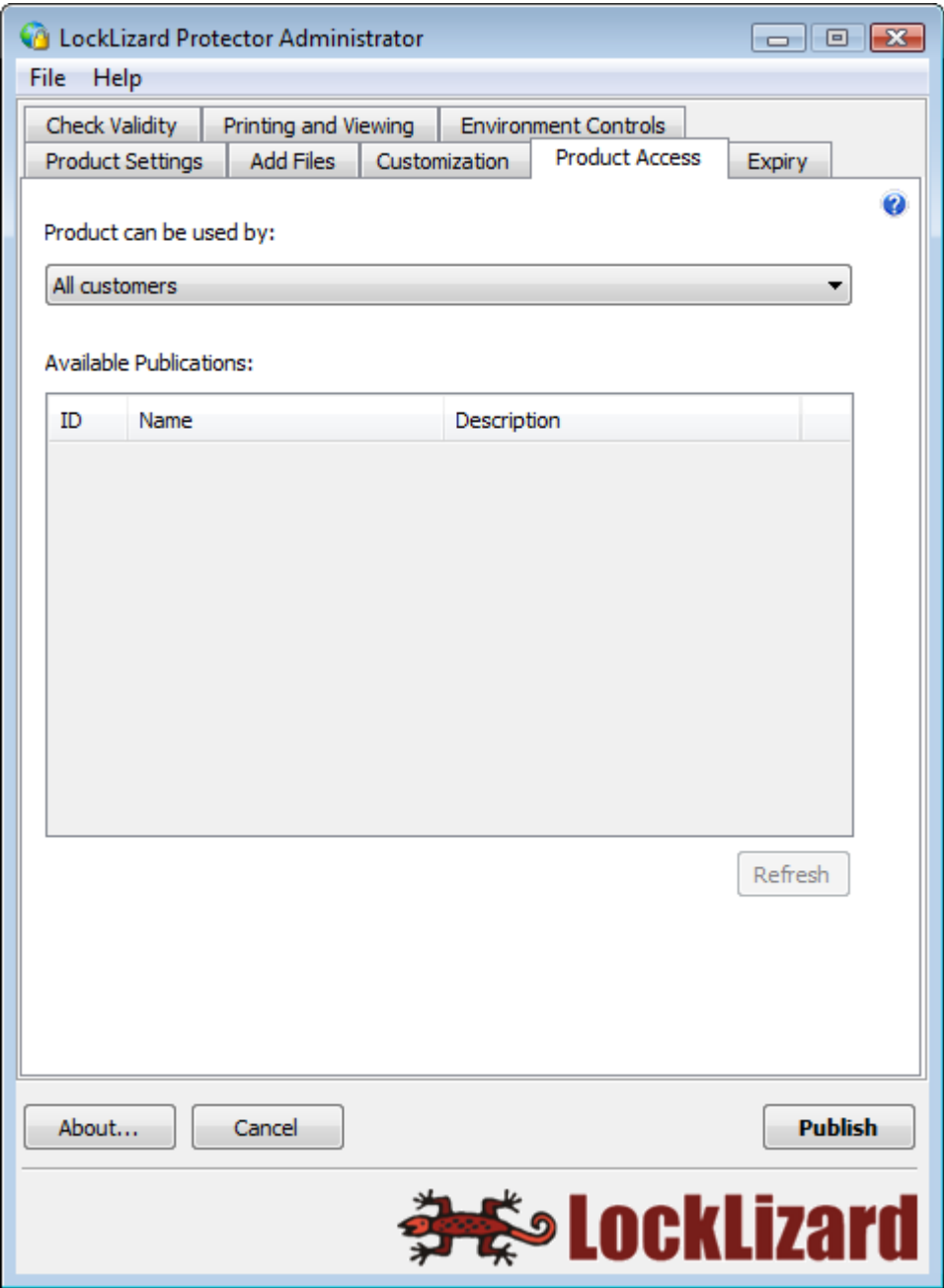


Diagram 17: Product Access tab



When you publish a product (document, training course, set of lecture notes, a web site, etc.) you need to decide if it should be part of a publication, should be published as a single product, or if it should be available to all your customers.

4.4.4.1 *All customer accounts*

If you select this option, then all your customers will be able to use this product without the need for you to individually allocate products or publications on the Administration system.

This is the best approach for products such as special price lists which you want to make available to your entire customer base.

In an internal control system you may need to make products available to all of your staff rather than to certain individuals or groups of users.

4.4.4.2 *Selected customers (must be individually allocated)*

If you select this option, only selected customers that you specifically allow access to your product will be able to view it. Products have to be individually allocated to customers on the Administration system when you create or edit customer accounts.

This is the best approach for selling one-off products such as books, single copies of a magazine, pictures and similar works. It has a particular advantage over publications in that you can change the product expiry controls that were set when the product was first published.

You may also publish information that is part of a publication and is published separately in its own right.

There are several reasons why this may be useful. You may wish to be able to send individual customers a sample of one of your other publications without having to give them a license for an entire publication. You may wish to sell individual information in its own right as well as having it as part of a publication. This would be the case when you have subscribers to a magazine, but also sell individual copies.



4.4.4.3 *Customers belonging to the selected publication*

If you select this option, rather than having to allocate individual products to customers, you only need to give them access to the publication. Only those customers given access to the publication you select will be able to use this product.

With this option, customers only have to obtain the decryption key for the first use of any product in the publication. Normally, when you protect products for selected customers, the Viewer software will automatically download each product decryption key from the server (provided that the user is entitled to view the product) when the product is first used. It does, therefore, require the user to be online at least once in order to retrieve the product key for each and every product published to that publication.

If you select the publication mode, then products are protected using a single publication key, so that the customer only has to download one decryption key for the publication and can thereafter automatically view all the other products published to that publication without the need for the Viewer software to download additional keys.

This is the most efficient choice when you are selling several customers a subscription to the same publication, say a daily newspaper, or a monthly magazine. Once they have registered, a subscriber will be able to use all the publications they are entitled to as soon as they receive them (unless you require them to be online to use the product).

If you select this option then you **MUST** choose the publication that this product is to be assigned to from the Available Publications list box. You may only allocate the product to one publication at a time.

If you have not yet created any publications, and want to assign this product to a publication you can do this using the administration system. Right click on the Windows Start menu and select All Programs > LockLizard > Lizard Protector > Administrator > Administration System. Select the 'Manage Publications' link and enter a Name and a Description (optional) for your publication and then press the  button.

The Manage Publications panel you are filling in is shown below.



The screenshot shows the 'LockLizard Protector Publisher Account Administration' window. On the left is a sidebar with navigation links: 'Show customer accounts', 'Create customer account', 'Import customer accounts', 'Search customer accounts', 'Manage publications', 'Manage products', and 'Set support email address'. The main area is titled 'Publisher account: LockLizard' and 'Manage publications'. It contains two input fields for 'Name' and 'Description', followed by an 'Add' button. Below this is a section titled 'Publications' with a checkbox for 'Reseller site' (labeled 'LockLizard reseller site') and a 'Delete selected' button.

Diagram 18: Administration System - Manage Publications screen

Once you have a Publication available you can assign your product to it.

Press the  button in the Product Access tab of the Lizard Protector Administrator GUI to update the view with your newly added publication(s).

The dialog box is titled 'Documents can be used by:' and has a dropdown menu set to 'Customers belonging to the selected publication'. Below this, under the heading 'Available Publications:', is a table with two columns: 'Name' and 'Description'.

Name	Description
Finance Monthly	Monthly stock reports
Hard up Times	Weekly financial paper
Sailing Weekly	Weekly sailing publication

At the bottom right of the dialog is a 'Refresh' button.

Diagram 19: - Available Publications – updated list box



4.4.4.4 *Why use publications?*

Publishing products to a publication is the most efficient choice when you are selling several customers a subscription to the same publication, say access to monthly reports, or a monthly magazine. Once they have registered, a subscriber will be able to use all the products in the publications they are entitled to as soon as they receive them.

You may also want to use this facility if you want to enable your customers to access all the products in a publication once they have registered to use any one product. Examples of this would be where you have provided a CD or DVD with many protected products on it which are part of the same logical publication, and you want your customers to be able to use all the products seamlessly, offline, once they have registered use of the first product. This may be because they need to be able to use the publication contents when an Internet connection is not available. If this is the case, then you need to make sure that you have not imposed any product controls that enforce a connection to the Administration server (number of prints, views, or validity checks).

You can protect products that are part of a publication and are published separately in their own right (as free-standing products). There are a couple of reasons why this may be useful:

- You may want to send individual customers a sample product from one of your other publications without having to give them a license for an entire publication.
- You may want to sell individual products in their own right as well as having them as part of a publication. This would be the case when you have subscribers to a magazine or financial report, but also sell individual copies.

If you wish to do this, then you must protect the product twice, once as part of a publication, and once as an individual product (selected customers only).



4.4.5 Expiry

Here you set the date from which your product is no longer available to the customer to use, and the message or URL that is displayed when your product expires, or n days before it expires.

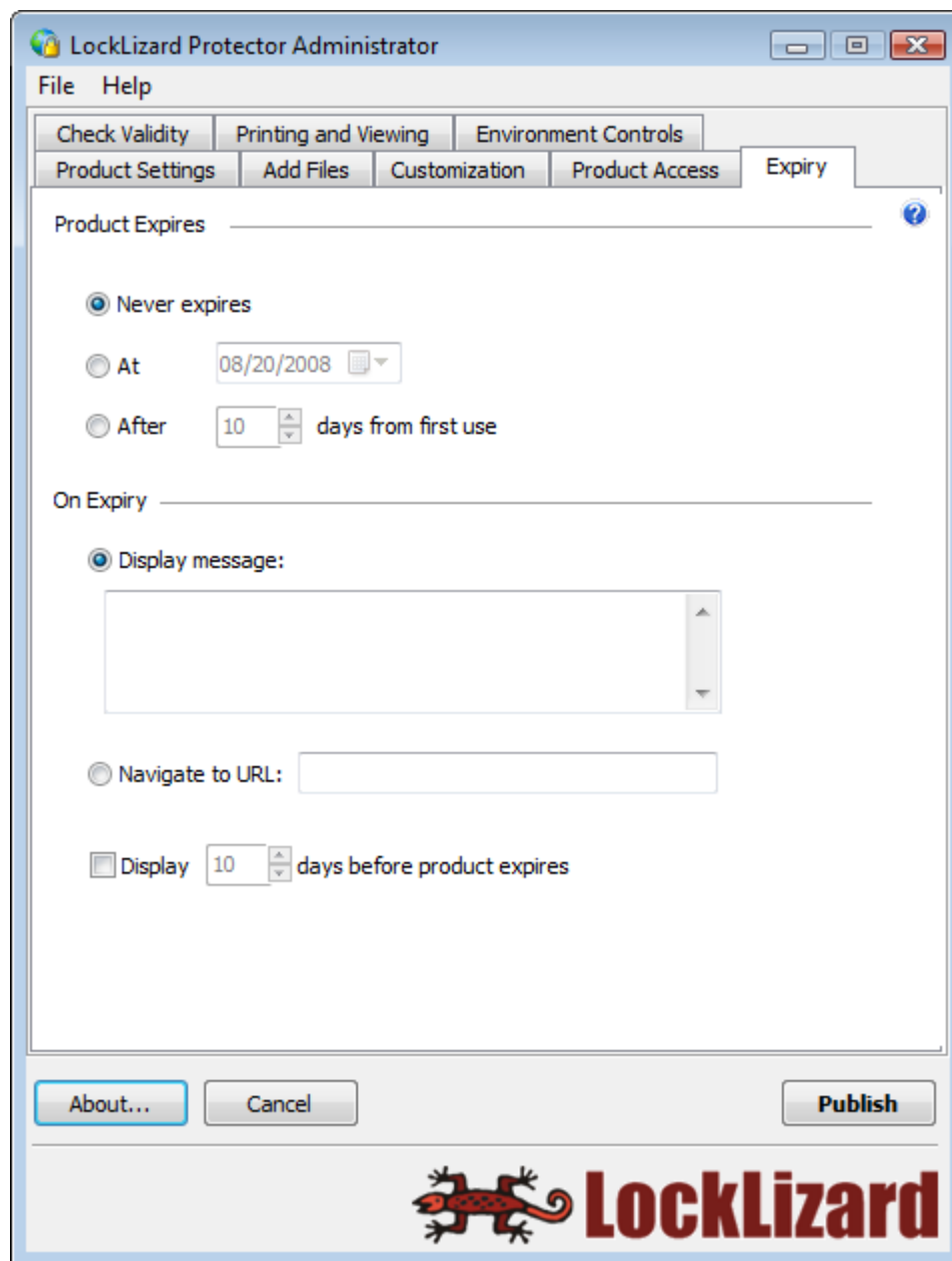


Diagram 20: Expiry tab



4.4.5.1 *Never expires*

Select this option if you do not want the product to expire.

The product continues to be viewable even after the customer account expires.

4.4.5.2 *Expires At*

Select this option if you want the product to expire on a specific date.

Select the date you require from the pull-down calendar list box. As soon as this date is reached the product can no longer be viewed, regardless of how long the customer account is valid for.

Please see [Appendix 5, Time & Date controls](#) for further information on how product expiry is calculated with respect to UCT time.

4.4.5.3 *After n days from first use*

Select this option if you want the product to expire after a number of days since it was first viewed (useful for giving away time limited trials of your products).

Select the number of days you require or enter a value in the box. As soon as this value is reached the product can no longer be viewed, regardless of how long the customer account is valid for.



NOTE: Internet connection required

If you choose this option, then the **first time** your customers view the product they must be online to the Internet.

This option is only valid for products protected for All Customers or to a Publication since individually allocated products have their own expiry settings.

4.4.5.4 *Display message (on expiry)*

Enter a message that will be displayed when your product expires.



4.4.5.5 *Navigate to URL (on expiry)*

Enter the URL of a web site page that the user will be redirected to when your product expires.

4.4.5.6 *Display n days before product expires*

Enter the number of days before your product expires that the expiry message / URL will be displayed.

Leave this setting at 0 if you want the expiry message / URL to be displayed on the day the product expires.

We recommend that you select a value of at least one in order to prompt the customer to react.



NOTE: Changing product expiry

Once a product has been allocated to one or more publications its expiry date is fixed, since all recipients of the publication have the same access rights.

However, if a product has been published outside a publication, you are able to alter the access rights at the time it is allocated to a customer or after (on a customer basis). You can change the start and end access dates or allow unlimited access. You can also use this feature to revoke user access to a product.

4.4.6 Check Validity

Here you control how often your customers must connect to the administration (licensing) server to verify license controls.

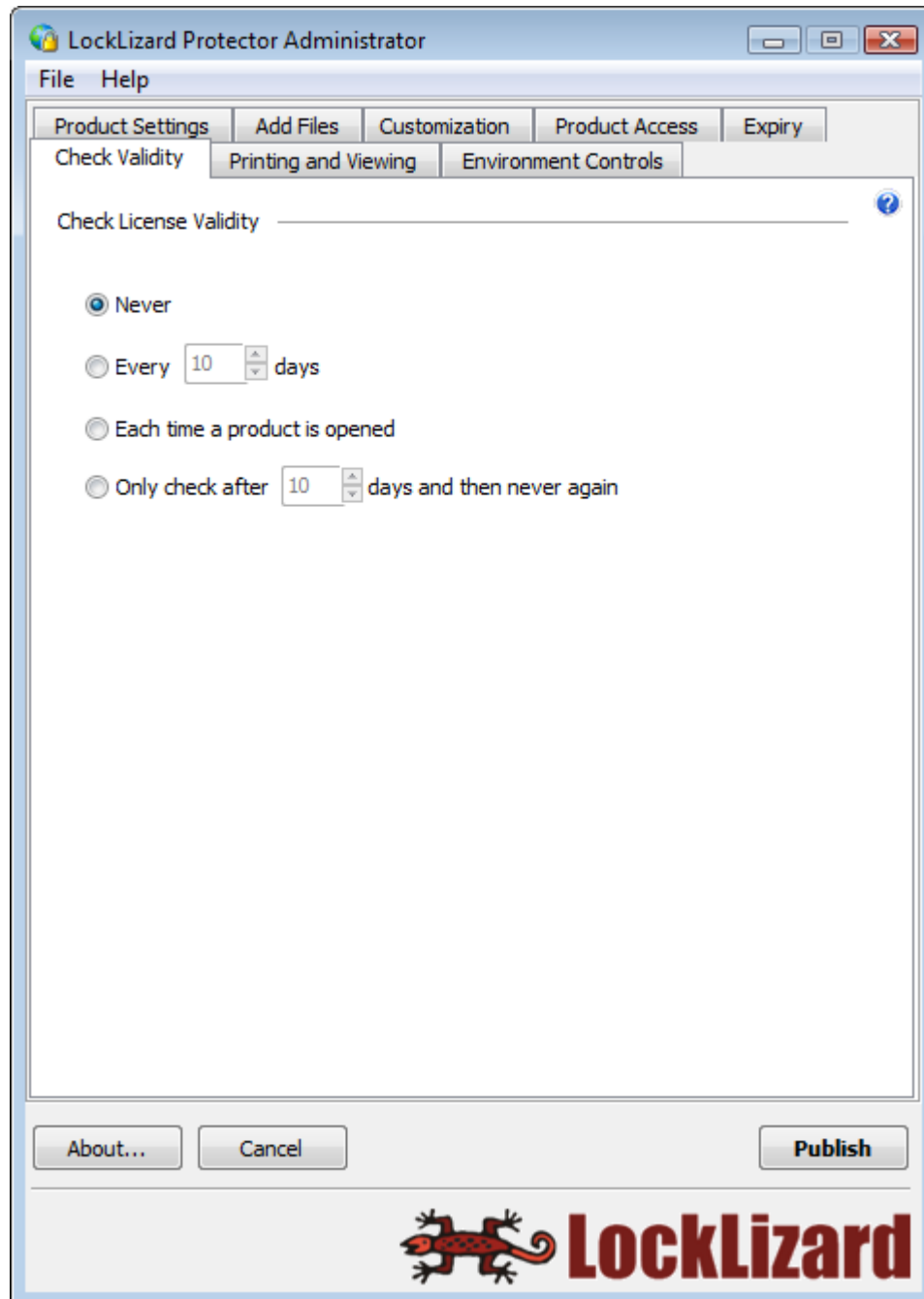


Diagram 21: Check Validity tab



Note that by forcing your customers to connect to the server for every access you can perform instant user or product revocation. If you choose a different time period, then that becomes the longest time before you can revoke any access.

4.4.6.1 *Never*

Your customers never have to connect to the licensing server in order to view your product.

Your product can therefore always be viewed off-line and no connection to the Internet is ever required.

This may be an appropriate setting for a book or magazine.



NOTE: Viewing a product for the first time

The first time your customers view a product (or the first product in a publication), the Viewer software always connects to the server to obtain the decryption key (this operation is transparent to the user). Subsequent checks with the server however are not made if this option is selected.

4.4.6.2 *Every n days*

The value you enter here determines how long your customers can stay offline before they need to connect to the administration server in order to verify their rights to view your product again.

Once this time period has elapsed they will not be able to use the product again until they let the Viewer software connect to the administration server to validate their license (this operation is transparent to the user).

You may select this option if you need to be able to suspend customers using publications when they have not paid their subscription.

4.4.6.3 *Each time a protected product is opened*

Your customers must be online in order to view and use your product.

Before they can view the product they will need to let the Viewer software connect to the administration server (this operation is transparent to the user) to verify their continuing access rights.



4.4.6.4 *Only check after n days and then never again*

Your customers have to connect to the administration server after the number of days you specify here.

Selecting this option means that on or after the number of days that you specify, the customer must connect to the administration server in order to have their license details verified. After this connection, they will not have to connect to the administration server again for this product.

This feature is useful where you have given credit terms to a customer and need the opportunity to revoke access to the product if they have not paid you. For example if you give your customers 30 day credit you might want to set it at 45 days giving you time to revoke their license in the event that you have not been paid.



NOTE: User Access Revocation

User access revocation will only work if either the user is required to check with the administration server before they can view your product.

This may be set to every use or every 'n' days (so revocation may not be instantaneous) or if the user does not have the correct decryption key to view your product (in which case they will have to connect to the server to retrieve it).



4.4.7 Printing and Viewing

Here you control whether your product can be printed, and if so, how many times. You can also control the number of times your product can be viewed and the display size in the Protector Viewer application.

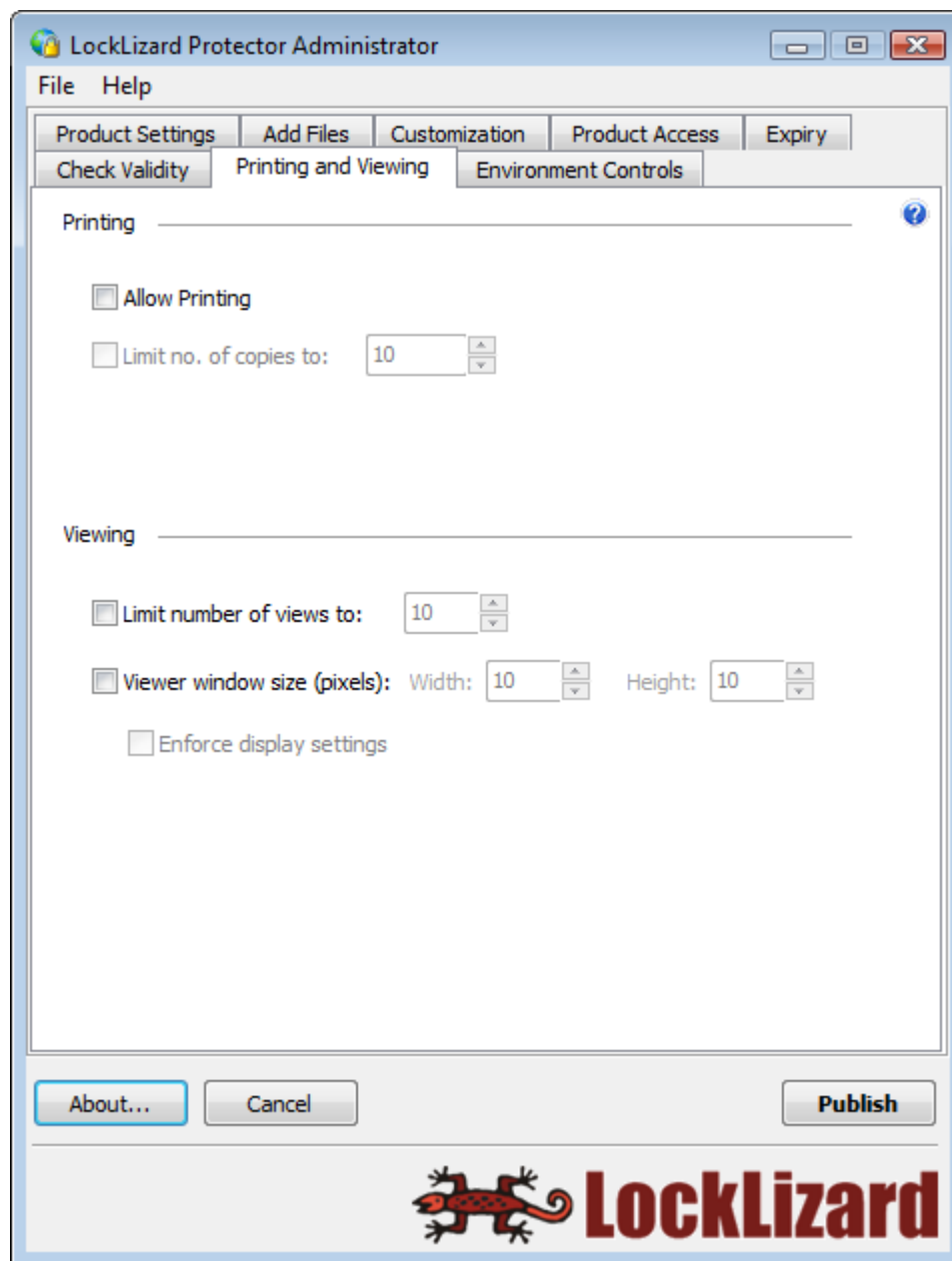


Diagram 22: Printing and Viewing tab



4.4.7.1 *Allow Printing*

Check this box if you want to allow the product to be printed.

Users are automatically prevented from printing to Adobe distiller and other print to file drivers.

Be aware that if you do enable printing, your customer is able to print a high quality copy which they can scan and read back in using OCR technology.

4.4.7.2 *Limit number of copies to:*

If you want to limit the number of copies customers can print then check this box and enter the number of copies allowed in the scroll box.



NOTE: Internet connection required

If you choose this option then your customers must be online to the Internet when they print the product in order to have the number of copies printed checked and reduced accordingly.

If the customer requests more print copies than are available, then the number requested is reduced to the maximum number still available. If the customer cancels a print after authorization then the print count is still reduced as if they had actually printed all the copies in that print command. Similarly, if the actual print fails the count will be reduced by the number of copies requested.



IMPORTANT NOTE: You should be aware that the number of copies allowed is based on the number of times the print command is executed. Therefore if your customers only print a single page of a product when they execute the print command (even though the product consists of many pages) then the print count is still decremented by the number of times they make a print regardless of how little or how much is actually printed.



NOTE: Changing the number of prints allowed

The print count can be changed on the admin system on a per customer / per product basis if a customer later requires additional print copies.

See [change number of prints](#) for additional information.

4.4.7.3 *Limit number of views to:*

You may limit the number of times customers can view your products by checking this box and entering the number of views that you are allowing in the scroll box.



NOTE: Internet connection required

If you choose this option then your customers must be online to the Internet when they view the product in order to have the number checked and reduced accordingly.

Depending on your business model there are different reasons for choosing this option. Publishers may wish to offer prospective customers the opportunity to use their product enough to make them feel they want to buy it. In a corporate environment, you may wish to make sure that individuals can only see products on a very limited basis, for instance, may be once or twice simply to verify the content.



NOTE: Changing the number of views allowed

The view count can be changed on the admin system on a per customer / per product basis if a customer later requires additional views.

See [change number of views](#) for additional information.



IMPORTANT NOTE: PRINT & VIEW ALLOWANCES

The number of prints / views allowed is applied at the Customer account level, and not at the license level. Each time a customer prints / views a product restricted in this manner, the count on the Customer account on the Administration server is decremented by 1 (or the number of print copies requested). So if for example, you have only allowed 3 prints for a specific product, once the customer has printed that product 3 times, they will be unable to print any more copies. This is true even if you have given that customer more than one license for their account, enabling them to print the product on more than one computer. If they have already printed the product three times on the first computer, then there are no print allowances left for use on the second computer. The same is true for limited product views.



4.4.7.4 *Viewer window size (pixels):*

Select this option to control the size of the viewer window.

You may find this setting useful if there is a particular house style that must be preserved and it is therefore important as to how the protected product is first displayed to your customer when it is opened using the Protector Viewer.

If you select this option, then you must specify the width and height of the viewer window. By default the viewer window is maximized for the screen resolution the user is running.

If you specify a value that is larger than the user's screen resolution, then the viewer application will resize the viewer window to fit the maximum screen resolution being used.

4.4.7.5 *Enforce display settings*

Check this box if you want to enforce the viewer window size. If you select this option then users will not be able to resize the viewer window.

If you don't select this option, then your product will load in the Viewer using the size specified, but users can then change this if they want to.



4.4.8 Environment Controls

Here you control whether copying and taking screen shots of your product is allowed, and whether your product can be viewed in a thin client environment.

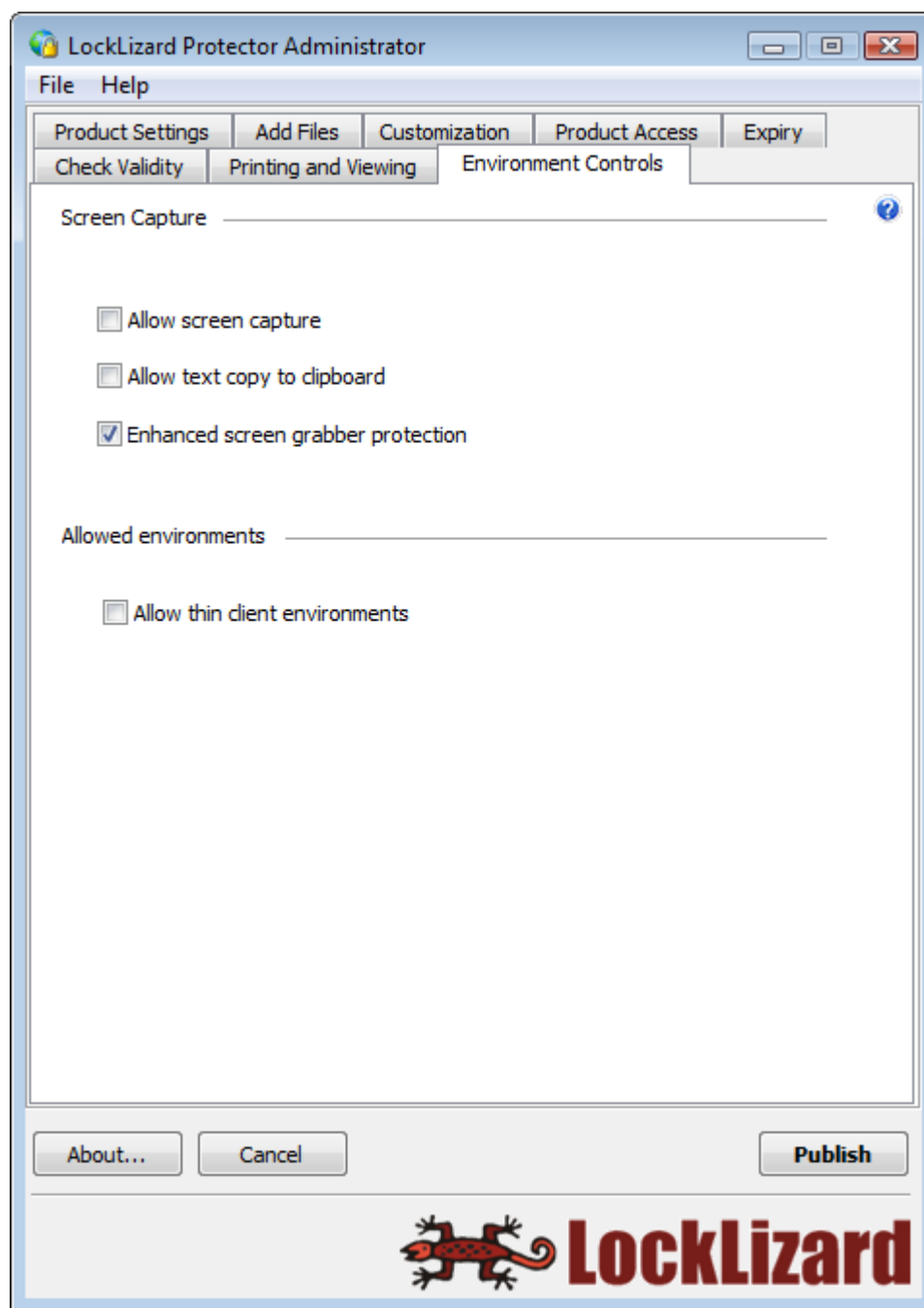


Diagram 23: Environment Controls tab



By default, copying and printing of your product is NOT allowed. If you want to allow these functions then you must check the appropriate check boxes.

4.4.8.1 *Allow screen capture*

If you select this option then your customers will be able to use Windows print screen and third party screen grabber applications to take image copies of the screen.

You may want to enable this option if you want to take screenshots for marketing purposes or instructional use, or where your staff need to be able to print out individual pages of products for internal use, or where you want to facilitate the ability to make use of a product for private study.

4.4.8.2 *Allow text copy to clipboard*

If you select this option then customers will be allowed to copy text from files in your product to the clipboard.

4.4.8.3 *Enhanced screen grabber protection*

If you select this option then all third party screen grabber applications are prevented from taking screenshots of your products.

This option adds another layer of security to Protector's normal screen grabbing protection.



IMPORTANT NOTE:

If this option is selected then the Viewer window will load slower and mouse scrolling will be noticeably slower. This may be an issue if you have customers using slow computers, or those that make significant use of mouse scrolling rather than the page up/down keys for navigation.



NOTE: Windows Print Screen and screen grabber applications

When the Protector Viewer is running, Windows print screen is disabled by default and cannot be used by any programs whilst the viewer remains active.

A wide range of screen grabber applications are also disabled whilst the viewer is running. If Protector Viewer detects a known screen grabber application running then it will minimize its own window so that screen shots of the pages in the viewer cannot be captured.

4.4.8.4 *Allow thin client environments*

If you select this option then your customers will be allowed to view your product in Citrix, Windows Terminal Server, and other virtual environments.

In these environments, it is possible that the user can install one copy of the software on their server and register centrally. The product can then be viewed on multiple desktops without limitation. So even if you only grant a user one license, multiple users will be able to view and use your products within their organization.



4.5 Saving and Protecting your product

To complete the process of securing your product, press the

Publish

button. Protector will process all the files that you have selected and build a table of files that can be protected and files that cannot. This may take a while if you have selected a lot of files.

Your files will be protected and the digital rights management controls you set will be applied. The following dialog will be displayed informing you of the progress.



Diagram 24: Secure file processing dialog

If you want to stop the processing at any stage then press the  button.

4.5.1 Product save location and file types

Your protected files will be saved to the folder you specified in the product settings output folder. The full path of the file is stored in the product file.

Files protected with Lizard Protector have the  icon associated with them. They are saved with a .hsf extension and will incorporate the original file extension in the new filename. For example, image1.gif will become image1-gif.hsf. This is so you can always tell the original file format of your protected files.

A filename with the product title (with no spaces) and the .dat extension will be generated by Protector and it will include the relative paths of the product files. This file **MUST** be distributed with your product files. It contains a list of the files that make up your product and their relative paths.



4.5.2 Product File (.llp file)

A product file containing the details of all the files that form part of a product is also saved to the output folder. This file has a .llp extension and the filename is what you specified as the product title. The .llp file contains the list of files that make up your product and the product settings.

The .llp file SHOULD NOT be distributed as part of your product.

4.5.3 Editing Existing Products

You can protect the same product more than once, either giving it the same title or assigning it a new one.

If you use the same title then the current product is updated on the administration system (as it still retains the same product ID). This is true even if you save the product to a new location.

Note that if you do not change the title when protecting a product that is already protected you may find it difficult to know which product has which controls as you may have previously distributed that product with different controls applied to it.

If you assign a new title to the product then LockLizard publishes it as a completely new product and creates a new unique reference number for it. So internally, we are always able to distinguish between different products, even if they contain the same files.

To edit an existing product, open the product file (.llp file) in the Lizard Protector administrator GUI from the File > Open menu or double-click on the .llp file in Windows File Explorer.

You can add or delete files, change product settings or update the product with any modified files. This saves you having to create a new product from scratch, importing all the files again, when you may only want to update a few files in your product.

If files in your product have changed but retain the same filename (for example, you just modified a file by adding some new text to it) then you can just load

that product and press the  button to re-protect it. You do not have to delete and then add the modified files back.



If files in your original source folder are no longer available (i.e. they have been renamed or deleted) but are included in your product for processing, then these will be displayed in yellow font in the administrator GUI. These files cannot be processed because the source file is no longer available. If you tick the checkbox next to a file displayed in yellow font then you will be prompted for the new location of the source file. You can therefore simply add it back into your product again for processing.



Chapter 5: The Administration System

The administration system (also known as the licensing system), is where you administer your products, publications and customers. This may be located on your own server or hosted by LockLizard.

Once you have secured your products it is a simple matter to set up your customers on the administration system (customer name, company name, email address) and assign one or more of your products or publications. Your products will then be accessible to your customers that have subscribed to them. Products that belong to a publication will be accessible to all your customers that are given access to that publication.

The Administration system lets you:

- Manually enter customer data;
- Import existing customer data (perhaps from your accounting system);
- Export customer data, products and publication records;
- Automatically enter customer data using the Lizard Protector eCommerce module.

The eCommerce module enables you to integrate Lizard Protector with your e-commerce system for a totally automated secure product distribution service. Once your customers pay for a product or publication their details are automatically set up on the administration server using HTTP put commands, and assigned the appropriate publication / product access rights, ensuring a 24x7 service. This provides a seamless interface and saves you from manually having to create customer accounts. For more information please see <http://www.LockLizard.com/product-add-ons.htm>

To go to the administration system, right click on the Windows Start menu and select All Programs > LockLizard > Lizard Protector > Administrator > Administration System.

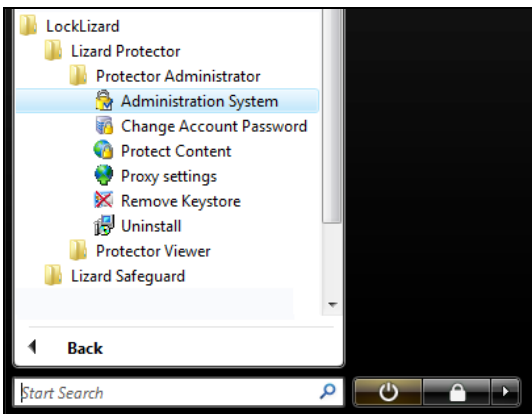


Diagram 25: Administration Page Context Menu

When you click on this it automatically opens up the web administration page (you must have an active Internet connection because you are connecting to the LockLizard online administration web site).

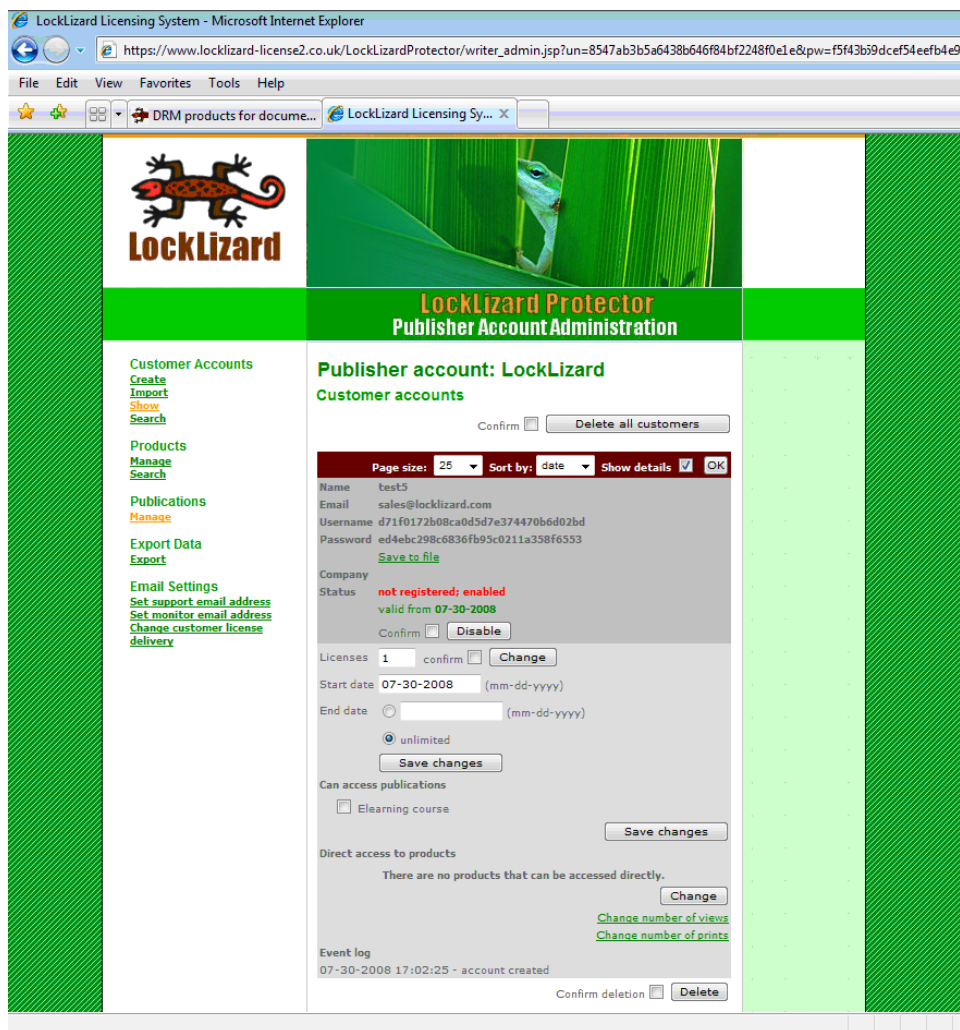


Diagram 26: The Administration System



NOTE: Internet connection is required

You must have an active Internet connection if you are connecting either to the LockLizard Administration servers or to one of your own web servers.

If the Administration server is located on your internal network then you will need access to it.

5.1 Administering Customer Accounts

The administration functions currently provided are:

- Create customer accounts;
- Import customers;
- View all customers you have created accounts for;
- Add extra customer licenses;
- Search for customers;
- Delete customers;
- Delete ALL customers;
- Suspend customers;
- Change customer account validity dates;
- Change the products your customers have access to;
- Change the product expiry date for individual customers;
- Change the number of prints allowed on a customer/product basis;
- Change the number of views allowed on a customer/product basis;
- Delete products;
- Create and delete publications;
- Change the publications your customers have access to;
- Re-issue license files;
- Export customer data;
- Export product records;



- Export publication records;
- Change the support email address;
- Set a BCC email address (so you receive a copy of all license emails that are sent by the system);
- Prevent license emails being sent out (useful if you use the eCommerce integration module and display license information on a web page);
- See a detailed account view;
 - when the account was created
 - when it expires
 - when a customer registered (and with what IP and MAC address)
 - what their username and password is
 - the products they are authorized to use
 - the publications they are authorized to use
 - whether they have tried to register Safeguard Viewer more than once (including attempts for unauthorized registration)
 - whether you allocated them additional licenses
 - whether an account is enabled or has been disabled
 - the time/date on which each of those activities occurred.



NOTE: Number of records displayed per page

To ensure records are displayed quickly, only 15 records are displayed at a time on each admin page.

You can alter the number of records displayed using the pull-down box labeled 'page size' at the top of the page.

Next and Previous navigation options are displayed at the bottom of each page if you have more than 15 records available.



5.2 Creating Customer Accounts

The first thing you will need to do in the administration system is to create customer accounts (or [import them](#)), otherwise no one will be able to view your protected products.

Click on the 'Create Customer Accounts' link.

When you create a customer account the customer is immediately emailed with the information needed to register their license for the product(s) and/or publication(s) that you have licensed them to use.

Create customer account

Name

Company

E-mail

Licenses:

Start date (mm-dd-yyyy)

Valid until ☒ (mm-dd-yyyy)

☐ unlimited

Can access publications

☒ Finance Monthly

☐ Hard up Times

Diagram 27: Create Customer Account screen

Enter the appropriate details in the fields provided.



5.2.1 Name

The Name may be an internal reference number that you use if that is convenient. The name you enter here is also used as the filename for the license file ("Customer name".plv), so that you and your users/customers are able to readily identify who the license is intended for.

Please note that you should avoid using any of the following characters as part of Name because they may be rejected by the file system of the operating system receiving the filename:

- " (double quotes)
- / (forward slash)
- \ (back slash)
- [(open square bracket)
-] (close square bracket)
- : (colon)
- ; (semi-colon)
- = (equals sign)
- , (comma)
- % (percentage sign)
- ? (question mark)
- < (less than)
- > (greater than)
- \$ (dollar sign)
- ' (single quote)
- (bullet)

If these characters are found to be part of the Name field they may be removed when the filename is created.

Please also note that embedded space characters are not removed (although they are removed from the filename for the associated zip file they remain on the underlying .plv file).

Whilst conventions regarding acceptable filename lengths suggest that the field Name could be 255 characters long, Microsoft advise that, "Even though long filenames can include up to 255 characters, network administrators will want to encourage concise filenames among users who post files to network locations. Because a file's full path length can't be longer than 260 characters, administrators should discourage filenames over 75 characters."



Further, the standard ISO9660 and the Joliet CD or Hybrid CD partition standards restrict filenames to a maximum of 64 characters, and may truncate and/or reject duplicate shortened names.

We therefore advise publishers to avoid entering more than 64 actual character positions in the Name field, in order to minimize potential problems with the administrative systems of their customers or internal IT departments.

5.2.2 Company

The Company field is optional, but you can enter a company name if it is required for your own business purposes.

5.2.3 Email

The Email address that you enter here is where the registration information (license file and Viewer product download details) will be sent.

5.2.4 Licenses

Enter the number of licenses to be provided.

Licenses:	1
-----------	--------------------------------

If you are licensing a company, they may have purchased more than one license and will want to be able to issue them internally. Entering additional licenses here therefore saves you from having to create a separate customer account for each authorized individual in that company. However, all users of that license will have the same access to the same products and their accounts will all expire at the same time, since they all share the same customer account.

A private customer may need to install the viewer on both their home and their work computers, in which case you would issue them with 2 licenses. This depends upon your business model.

Every time a customer registers a license, the number of available licenses for their account is decremented by 1. If you originally set this field to 1 when you set up the customer account, when the customer registers, the licenses field reduces to 0. As a result, the customer will not be able to register from a different computer using that license again.



This stops customers from sharing their license code information with others, because they can only register the number of times that they have been licensed.

Customers may register a license again on the computer it was originally installed (this might be necessary for example if you have to rebuild the system) and the license is automatically re-used.

If a customer requires another license at any stage (purchasing an additional use) you can of course enter a new value in this field so that they can register their license an additional number of times.



NOTE: Re-using licenses

Lizard Protector can be re-installed on the same computer without you having to issue your customer with an additional license. When a customer re-registers with their license, the viewer software checks with the administration server to see if it is the same computer the software was originally registered on, and if so, lets the license be re-used. So if your customers re-install their operating system for whatever reason they can re-install the viewer software and continue using the product as before.

5.2.5 Start Date

This is the day on which a customer account becomes available to use.

Start date (mm-dd-yyyy)

If you set this date to some time in the future then the customer will not be able to register the Viewer software until that date is reached.

The customer start date is also relevant to products that are published to a publication. If products that are part of a publication have a start date before the customer start date, then customers will still be able to view those products **unless** you check the 'obey customer start date' for that publication. Selecting this feature prevents customers viewing products that have been published to publications before their subscription period began. Some publishers however want their customers to be able to view all products published to a publication (regardless of the customer start dates), and this is the default setting.



5.2.6 Valid until

Enter the date when the customer account expires. This may be the end of a subscription period, for instance.

Valid until ☒ (mm-dd-yyyy)
☐ unlimited

When the expiry date is reached, products that were published between the start and end dates for which your customers have the correct licenses will still be viewable, unless you have specifically made individual products expire on a given date that is earlier than the customer end date.

Once a customer account has expired, the customer will be able to continue to view any products they had access to during their validity period, but not any new ones. So even if your customer is able to access products in one or more publications, any new products published in those publications after their account has expired will not be useable.

If you provide subscription services, you should set a customer account to expire at the end of their subscription period. After that time (say a year) has passed they will still be able to access existing products published in those publications, but new ones will be inaccessible (unless they renew their subscription).

5.2.6.1 Unlimited

If you choose the 'unlimited' option then the account will never expire.



NOTE: Start and valid until dates

Start and Valid until dates can be changed whenever you want. However, the result of making changes on the administration system will only have effect if the customer has to check, at least periodically, with the server for authorization to view or use a product.

If customers have been granted offline use (in other words there is no requirement to check with the server), changes at the administration server will have no effect because they will never check with the server to update their authorities.



Use date settings interact with the validity dates that are set on products. As a result, the rules have different implications depending upon the settings of both customer and product start and end dates, including 'never expire', which are summarized below.

Please be aware of the relationship of these settings when choosing start and end dates for both customers and products.

	Product does not expire	Product does expire
Customer Account expires	Product can always be used if it was published between the customer validity dates	Product can be used until it expires provided it was published on or after the customer start date
Customer account does not expire	Product can always be accessed	Product can be accessed until it expires

Table 1: Product and Customer Expiry

5.2.7 Can Access Publications

Check the boxes corresponding to the publications this customer has purchased.

Can access publications

☒ Finance Monthly

☐ Hard up Times

Any products that are assigned to that publication will be viewable by this customer within the customer validity dates as mentioned above.

On pressing the button the customer information is added to the server and a license file is automatically emailed to the customer using the email address you entered. The email also contains the download link for the free Protector Viewer software and instructions on how to install it if they have not already. See [Customer Registration](#)

Now you are ready to send your protected products to users by email or publish them on a CD-ROM, or make them available from your web site.



5.3 Importing Customer Details

You may already have an established customer base, and simply need to import existing customer records into the LockLizard administration system in order to get started.

This information can be imported in a .csv format file (a spreadsheet format) containing the minimum details needed to satisfy the LockLizard system.

Click on the 'Import Customer Accounts' link.

Import customer accounts

CSV file:

Each line must contain the customer account definition as follows:

- Name. (required)
- Email address. (required)
- Licenses. (required)
- Start date. (required in format mm-dd-yyyy)
- End date in format mm-dd-yyyy or un for unlimited validity. (required)
- Company. (optional)
- Publications. A list of publications accessible to the customer. The publication names must be separated by a colon (':'). (optional)
- Direct access for documents. A list of documents accessible to the customer. For each document the following must be provided: document ID, document access period specified as "un" for unlimited period or as start date and end date in mm-dd-yyyy format for limited periods. These values must be separated by a colon (':'). (optional)

An example CSV file can be viewed from the following link
www.locklizard.com/downloads/sample_data.csv

Note: If a field value contains a comma it must be quoted. If a quote is contained too then use a double quote.

Diagram 28: Import Customer Accounts screen

The CSV file must contain on each line a customer account definition as set out in the screen above. Each row of the spreadsheet is a distinct customer record.

A sample CSV file showing you how the fields are laid out can be downloaded from www.LockLizard.com/downloads/sample_data.csv

A sample PDF file showing you what each data field represents can be downloaded from www.LockLizard.com/downloads/sample_data.pdf



Once you have browsed for the CSV file containing your customer information, press the button to complete the process.

When the import has taken place a message will be displayed telling you how many customer records were imported. For each customer record that is imported a customer account will be created and license files will be automatically emailed to each customer's email address.

Where errors have prevented the import of a customer record you will be notified of the record number that failed and the reason for rejection. You will have to manually extract records that have failed and correct them for re-submission. DO NOT correct and re-submit the original CSV file because all of your customers will be emailed again with their license details.



5.4 Showing and Administering Customer Accounts

Here you can view and administer the customer accounts that you have already set up or imported.

Click on the 'Show Customer Accounts' link.

Name	Brian James
Email	bjames@bluebox72.com
Username	035ee91a90824c25c890489c1b1c7f79
Password	68936566dffa9fad0dcc5e26f4af7ef4
	Save to file
Company	Blue Box Inc.
Status	not registered; enabled valid from 02-23-2007
Confirm	☐ Disable
Licenses	1 confirm ☐ Change
Start date	02-23-2007 (mm-dd-yyyy)
End date	☐ (mm-dd-yyyy)
	☒ unlimited
	Save changes
Can access publications	
	☐ Reseller site
	☒ Elearning course
	Save changes
Direct access to products	
	There are no products that can be accessed directly.
	Change
Event log	
	02-23-2007 22:29:48 - account created
	Confirm deletion ☐ Delete

Diagram 29: Customer Accounts screen

The Name and Email fields are used to identify who the customer is and the email address is where the license information has been sent.

Name	Brian James
Email	bjames@bluebox72.com



5.4.1 Username and Password

The license file that your customers receive is a file containing a username, a password, additional check code information and the URL of the licensing server. If you are hosting your own administration server this will be the URL you have chosen.

```
Username 035ee91a90824c25c890489c1b1c7f79
Password 68936566dffa9fad0dcc5e26f4af7ef4
Save to file
```

Since the email is sent by an automated server, some SPAM filtering systems may block this and prevent the email from getting through. If this happens you will have to re-issue the customer license manually. Click on the 'Save to File' link in order to save their license file to disk and then you can manually email the file to your customer.

5.4.2 Company

If you have entered a company name then it is displayed here. This can be used as a search field for finding customers.

```
Company Blue Box Inc.
```

5.4.3 Status

This field shows when the customer actually registered their license with you and whether their account is enabled or suspended.

It also displays the validity period of the account – when it was valid from and whether it expires.

The text on the status field is displayed in **red** for unregistered accounts and **green** for registered accounts.

```
Status not registered; enabled
      valid from 02-23-2007
      Confirm ☐ 
```

```
Status registered at 02-23-2007 22:39:40; enabled
      valid from 02-23-2007
      Confirm ☐ 
```



5.4.4 Suspend Account

There may be times when you need to suspend a customer's account. This may be because they have subscribed to your service but have not actually paid. Any products that require a connection to the server will no longer be viewable if a customer's account has been suspended. Also, new products that are published will not be usable.

5.4.4.1 *Suspending an account*

To suspend a customer's account, check the **Confirm** ☐ check box and then press the **Disable** button. If you then check the customer's account you will see that it has been suspended.

The text on the status field is shown as 'suspended' in red font.

Status registered at 04-30-2007 19:39:04; **suspended**

5.4.4.2 *Re-enabling an account*

To re-enable a customer's account check the **Confirm** ☐ check box and then press the **Enable** button (note: this button is only shown next to suspended accounts).

The text on the status field is then shown as 'enabled' in green font.

registered at 10-30-2006 18:29:28; **enabled**

5.4.5 Licenses

Here you can change the number of licenses that have been allocated to a customer (add or remove licenses).

Licenses confirm ☐ **Change**

The default value when you create a customer account is one.

Enter the number of licenses that you want to make available in the licenses field, check the **Confirm** ☐ check box and then press the **Change** button.



You may want to allocate customers with extra licenses if you have decided at a later stage to let them view your products on more than one computer. Also, you will have to allocate your customers additional licenses if they change computers, as they will have to re-install the Viewer software on their new computer and re-register with you. See [Changing Computers](#).

Regardless of the number of licenses you have given your customers, they will always register the viewer using the same license file (so they are not sent additional license files even if they have been allocated additional licenses). The license count is decremented by one on the server each time your customers register on a new computer. Re-registering the viewer software on a computer that was previously registered does not decrement the license count – see also [Upgrading Computers](#).

Please recall that global controls such as number of views and number of prints apply at the customer level and not at the license level.

5.4.6 Start Date

You may want to change the start date of a customer account in order to give the customer access to back issues of published products.

Start date (mm-dd-yyyy)

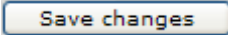
Your customer will not be able to view any protected products created before this date unless they have been protected as part of a publication.

5.4.7 End Date

You may want to change the end date of a customer account in order to grant them continuing access to publications. This may be because they have purchased another year's subscription.

End date ☐ (mm-dd-yyyy)
☒ unlimited



If you have changed either the start or end dates make sure you press the  button to cause them to take effect. Make sure that the change you are requesting will actually affect customers in the way that you anticipate.



NOTE: Start and valid until dates

Start and Valid until dates can be changed whenever you want. However, the result of making changes on the Administration system will only have any effect if the customer has to check, at least periodically, with the server for authorization to use the product. If customers have been granted offline use, changes at the Administration server will have no effect, because the customer's Viewer will never check with the server to update their authorities.



NOTE: Customer and Product Expiry

Customer account expiry is totally different from product expiry. For a more detailed description of the interaction between customer account and product expiry please see [Table 1](#).

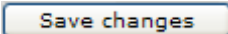
5.4.8 Can Access Publications

Whenever you add a new publication to your publications list it automatically becomes available for allocating to all current customers.



Can access publications	
☒	Money Times
☐	Hard Up
☐	Big News

Save changes

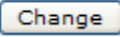
If you want a current customer to be able to receive the new publication simply enable the publication checkbox in the customer record and then press the  button.

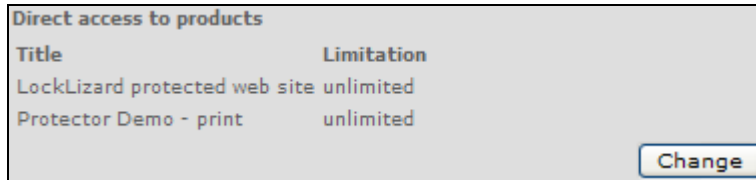
It doesn't matter when publications are created, because as soon as they are you can allocate them to existing customers. The customer will still have to be



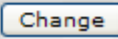
sent the actual products (or have them available for download) before they can use them.

5.4.9 Direct Access to Products

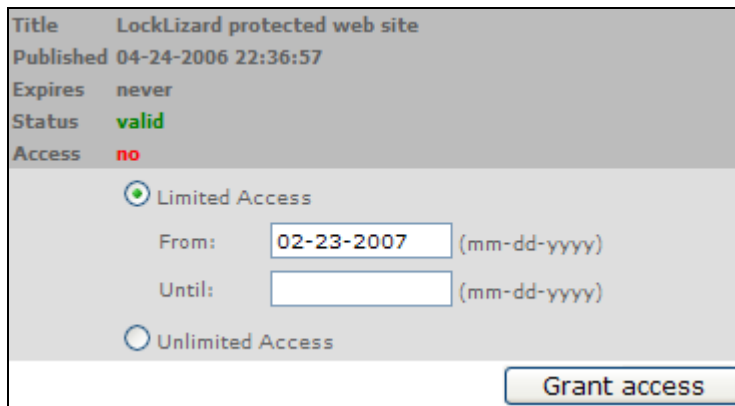
Press the  button to view the products that have been published outside of a publication.



Title	Limitation
LockLizard protected web site	unlimited
Protector Demo - print	unlimited



You will then be able to assign a specific customer access to individual products.



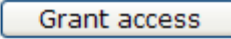
Title	LockLizard protected web site
Published	04-24-2006 22:36:57
Expires	never
Status	valid
Access	no

☒ Limited Access

From: (mm-dd-yyyy)

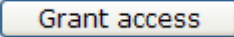
Until: (mm-dd-yyyy)

☐ Unlimited Access



Please remember that the title you chose when the product was created is the reference to both the files and the encryption key. You will need to maintain a record of which titles refer to which products and the folders they are stored in.

Even though you will have previously set product expiry when you published a product, you can change the product expiry on a customer basis. Select the 'Limited Access' radio button if you want to set specific start and end dates or the 'Unlimited Access' radio button if you don't want the product to expire. Do remember that this overrides the original settings, and it is imposed when the customer registers for this specific license.

Once you have made your changes press the  button and your customer will have access to the product. The Access field entry will change from "No" (see diagram above) to "Yes" (see diagram below).



Title	LockLizard protected web site		
Published	04-24-2006 22:36:57		
Expires	never		
Status	valid		
Access	yes		
☐ Limited Access			
	From:	02-23-2007	(mm-dd-yyyy)
	Until:		(mm-dd-yyyy)
☒ Unlimited Access			
		Revoke access	Save changes

You can later either change product access by selecting new product expiry dates and pressing the button or revoke customer access to a product by pressing the button.



NOTE: Offline access

Do remember that if you have given a customer offline access (i.e. there is no control requiring connection to the server) to a product that does not expire, there is no point trying to change access restrictions later, because the changes will have no effect.

CRITICAL NOTE: EFFECTS OF GRANTING DIRECT ACCESS TO PRODUCTS THAT ARE PART OF A PUBLICATION

The key characteristic of a publication is that access to one product in a publication grants access to all others within that publication (within start and end date limitations and removal of products).

If you decide to give non-publication users direct access to products that have been published to a publication, then they will also be able to view all of the other products in that publication (assuming they can get hold of them).

We strongly advise publishers not to grant direct access to a product that has been published to a publication. If you wish to do this, then you should protect it again as a standalone product. You can then give users access to that product without granting access to an entire publication.



5.4.10 Changing the number of views

Select the [Change number of views](#) link to change the number of times a product can be viewed (opened) by the selected customer.

This feature also enables you to see how many product views remain (and, therefore, how many have been used) for any product with this restriction set, by individual customer. Note that this change can only be applied to products that were originally published with a limited number of views. It is not a control that can be introduced after a product has been protected.



NOTE: Changing the number of views

This change can only be applied to products that you have originally published with a limited number of views. It is not a control that can be introduced after a product has been protected. The customer must have already opened the product at least once in the Viewer software before you can change this value.

The screen below is displayed showing the products for which this customer has a limited number of views.

Change number of document views for "LockLizard Support"

Title	Introduction_to_Digital_Rights_Management
Views left	1
Update	

Title	license-1view
Views left	0
Update	

Change the “views left” count by typing in the number of product views you now want to allow and then press the button.



NOTE: Number of product views counter

Product entries are ONLY displayed on this screen if the customer has already opened the product at least once in the Viewer software.



5.4.11 Change number of prints

Select the [Change number of prints](#) link to change the number of times a product can be printed by the selected customer. This feature also enables you to see how many prints are left for a given product for the selected customer.

This feature is useful if, say, you only assigned a single print to a product and the customer claims they have not been able to actually print the product, and you agree to reset the capability.



NOTE: Changing the number of prints

This change can only be applied to products that you have originally published with a limited number of prints. It is not a control that can be introduced after a product has been protected.

The customer must have already printed the product at least once in the Viewer software before you can change this value

The screen below is displayed showing the products for which this customer has a limited number of prints.

Change number of document prints for "LockLizard Support"

Title	8391-wm-p2-ps
Prints left	1
Update	

Title	A_History_of_Rights_Management-printmac
Prints left	1
Update	

Change the "Prints left" count by typing in the number of product prints you now want to allow and then press the button.



NOTE: Number of product prints counter

Product entries are ONLY displayed on this screen if the customer has already printed the product at least once.



5.4.12 Event Log

The event log shows a history of the customer account.

```
Event log
10-30-2006 14:58:28 - account created
10-30-2006 18:29:28 - Registration successful. From: 81.153.71.201
10-30-2006 22:46:19 - No more licenses. From: 81.153.71.201
10-30-2006 22:48:42 - ADMIN: 10 available license(s). From:
81.153.71.201
10-30-2006 22:48:54 - Registration successful. From: 81.153.71.201
02-22-2007 14:17:24 - ADMIN: account suspended. From:
86.147.251.93
02-22-2007 14:18:27 - ADMIN: account enabled. From: 86.147.251.93
```

Items recorded are:

- when the account was created
- when the customer registered their license(s)
- if there have been any failed attempts to register (tried to register a license when one was not available)
- if a license has been re-used (registered again from the same computer)
- the IP address(es) involved
- whether the account has been enabled/disabled
- whether any extra licenses have been allocated

5.4.13 Delete Customer Account

There may be times when you need to delete customer accounts from the system. This may be because you were testing the system and have accounts you no longer need, or it may be because they are no longer a customer and should not have access to your products or publications. If this is the case, check the 'confirm deletion' check box ☐ Confirm deletion and then press the button.

Please remember that once you have deleted an account then if the customer in question is accessing information that required them to connect to the administration server those products will no longer be viewable, since there are no records to authorize against.



IMPORTANT NOTE: Deletion of customer accounts

Once you have deleted an account, then if the customer in question is accessing products that required them to connect to the Administration server, those products will no longer be viewable, since there are no records to authorize against. If the customer in question is accessing products that do not require them to connect to the Administration server then those products will continue to be viewable by that customer regardless.

You may also delete ALL customer accounts by checking the **Confirm** ☐ checkbox and then the **Delete all customers** button at the top of the customer accounts page.

This option is useful during testing situations when you may want to remove all customer test accounts. It may also be used when you wish to synchronize a membership system once a quarter/year rather than reconcile your own CRM system with the LockLizard Administration system. If you choose to do this, then please be aware that new licenses will be automatically issued to all the customer records that you then add when bringing the systems into line, and that your customers will have to register their new license files because their current ones will no longer verify.



IMPORTANT NOTE: Deleted accounts cannot be recovered

Please be careful when using this option as customer accounts are not recoverable once they have been deleted.



5.5 Searching for Customer Accounts

To quickly find a specific customer account, click on the 'Search Customer Accounts' link.

Publisher account: LockLizard

Search customer accounts

Search by:

☒ Show details

☐ View all customers that have

Diagram 30: Search customer accounts screen

In the 'Search by' field enter the name or partial name of the customer you are searching for, and then press the button.

Check the ☒ **Show details** check box if you would like the customer account(s) to be shown with all their associated information.

You can also view all customers that have not yet registered, or all customers that have registered, by checking the ☐ **View all customers that have** button. If you use this option do not enter any text in the 'Search by' field.



NOTE: Searchable fields

Searchable fields are the customer name and email address.



5.6 Managing Publications

This function is provided to facilitate managing products.

Publications are used when your customers are purchasing a regular supply of your products, daily, weekly, monthly, etc.

By allocating products to a publication you are simplifying the delivery of your products to your customers. This is because any customer associated with a publication can automatically use all the products associated with that publication without them having to connect to the administration server to retrieve new license information. It avoids you having to allocate individual products to each customer entitled to make use of them.

To add or delete publications, click on the 'Manage Publications' link.

Publisher account: LockLizard
Manage publications

Name

Network Learning

Description

Monthly network learning course

☐ obey customer start date

Add

Publications

Name	Description	Obey customer start date
☐	Elearning course	no

Delete selected

Diagram 31: Manage Publications screen

5.6.1 Adding publications

To add a publication, enter a name for the publication, and optionally a description, and then press the **Add** button.

All of the publications you have previously created will be displayed in the Publications section.

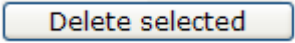


5.6.1.1 *Obey Customer Start Date*

Check this box if you don't want customers to have access to products published before the customer was added. For example, if you are selling subscription services for a publication and do not wish new customers to gain access to back numbers (issues published before the customer subscribed to your publication).

If this box is not checked then the customer start date will be ignored. (Please recall that if you publish a document with a start date in the future it will not become available to the user until that date.)

5.6.2 Deleting Publications

To delete existing publications check the appropriate boxes next to the publication name(s) and then select the  button.

Be aware that if you use this command it is not possible to recover either the publication, or any of the products that were part of it, or any of the links to customers who had access to the publication.



IMPORTANT NOTE: DELETING PUBLICATIONS

YOU SHOULD NEVER USE THIS FUNCTION WITHOUT BEING CERTAIN THAT YOU INTEND TO DELETE THIS INFORMATION FOREVER.



5.7 Managing Products

This section is where you can view product publication information and delete product records from the administration system.

Click on the 'Manage Products' link.

Manage protected products							
Confirm ☐ <button>Delete all products</button>							
Sort by: date Show details ☒ OK							
Title	My Product28						
Published	02-16-2007 17:05:14						
Expires	never						
Status	valid						
Product ID	816						
Validity check	never						
Print	enabled and unlimited						
Publications	every customer has access						
Confirm deletion ☐ <button>Delete</button>							
Title	My Product24						
Published	02-16-2007 17:03:34						
Expires	never						
Status	valid						
Product ID	815						
Validity check	never						
Print	disabled						
Publications	every customer has access						
Confirm deletion ☐ <button>Delete</button>							

Diagram 32: Manage Products screen

You cannot alter any of the information in this panel. If you want to make changes you will have to go back to the original product and protect it again using the new settings.

The following information is displayed:

- Product titles;
- When they were published (date and time);



- When they expire (if ever);
- Their existing status (valid or expired);
- Their unique IDs (this helps you distinguish between products of the same name and is also used by the eCommerce integration system);
- Whether a check must be made with the server before they can be viewed (Validity check);
- Whether printing is allowed (and if so how many copies);

This field may show one of three options:

- Disabled - printing is not allowed;
- Enabled and unlimited – unlimited printing is allowed;
- Enabled; n copies allowed – printing is allowed by restricted to the number of copies specified.

- What publications they have been assigned to (if any);

This field may show one of three options:

- None – the product has been published as a standalone product;
- Every customer has access - the product has been published for all customers to view;
- A publication name – the product has been published to a publication.

5.7.1 Deleting product records

You may want to delete a product record if you need to withdraw a product from customers, perhaps because it has been superseded.



IMPORTANT NOTE: Deleting records

Once you have deleted a product record then if the customer in question is accessing a product that requires them to connect to the Administration server, those products will no longer be viewable, since there are no records to authorize against.
If the customer in question is accessing products that do not require them to connect to the Administration server, then those products will continue to be viewable.



Product records can be deleted by checking the **Confirm deletion** ☐ check box and then pressing the **Delete** button.



IMPORTANT NOTE: PRODUCT RECORD RECOVERY

There is NO recovery if you delete product records. They cannot be reinstated, and you will have to protect new products if you want to replace existing ones.

Bear in mind that if you delete a product record from the administration system then the product can no longer be viewed by customers if the validity check on the product is set to each time it is opened or after n number of days has passed. This may be a requirement if you need to be able to withdraw a product from customers, perhaps because it has been superseded. If you delete a product record that had the check validity set to never then users will still be able to view that product.

If you want to delete ALL your product records (for example you want to remove a test environment), check the **Confirm** ☐ check box and press the **Delete all documents** button.



5.8 Searching Product Records

To quickly find a product, click on the 'Search Products' link.

Search products

Search by:

☒ Show details

☐ View all products that are

☐ View all products that expire on
(mm-dd-yyyy)

☐ View all products that belong to the publication

Diagram 33: Search Products screen

In the 'Search by' field enter the full or partial name of the product you are searching for, and then press the button.

Check the ☒ **Show details** check box if you would like the product(s) to be shown with all their associated information.

5.8.1 Searching for expired products

You can view all products that have expired or all products that are valid (not expired) by checking the ☐ **View all documents that are** check box, selecting the required option from the drop-down list box, and then pressing the button.

NOTE: If you use this option DO NOT enter any text in the 'Search by' field.



5.8.2 Searching for products that expire on a certain date

You can view all products that expire on a certain date by checking the ☐ View all documents that expire on (mm-dd-yyyy) check box, entering the required date, and then pressing the button.

NOTE: If you use this option DO NOT enter any text in the 'Search by' field.

5.8.3 Searching for products that belong to publications

You can view all products that belong to specific publications by checking the ☐ View all documents that belong to the publication check box, selecting the required publication from the drop-down list box, and then pressing the button.

NOTE: If you use this option DO NOT enter any text in the 'Search by' field.



5.9 Exporting Data

These facilities are provided to allow you to extract information concerning customers, products and publications that are held on the administration database.

The output format is .csv. You may process the information provided in any suitable spreadsheet application.

Click on the 'Export' link.

Export data

☒ Customers

☐ Products

☐ Publications

Diagram 34: Exporting data screen

Select the appropriate radio button corresponding to the data you want to export and then press the button.



5.10 Setting the Support Email Address

You should use this function to set up your standard support email address so that your customers will be serviced correctly.

When you create customer accounts, your customers are sent an email that contains their license file and a link that tells them how to download and install the free viewer software. This email displays the following text:

“If you have any difficulty registering the product please contact the product owner at email@address.com”

This is the email address that your customers are being told to send email to if they have problems accessing protected information that you provide. This is also the email address that is displayed in the FROM field of the email message.

Click on the ‘Set Support Email Address’ link and enter the support email address for your company for your products / publications in the dialog below so that it will be displayed instead of the default one.

Publisher account: LockLizard

Support email address

E-mail

Diagram 35: Set Support Email Address screen

The default email address is the one that was entered when you created your Administrator account (where your registration information was sent).



IMPORTANT NOTE: Support email address

DO NOT set this address to support@LockLizard.com.

Customer requests for support must first go to you as the publisher before being redirected through to LockLizard support. Direct requests from your customers to our support department will be sent back to you as the publisher. You may prejudice your support agreement if you do not comply with this requirement.



5.11 Setting the Monitor Email Address

This function allows you to set the email address to which a copy of the customer license file will be sent.

Monitor email address

E-mail

Save

Diagram 36: Set Monitor Email Address screen

Enter an email address and then press the  button.

You may want to use this function so that you do not have to use the 'save users license file to disk' option on the Administration system in order to resend a customer their license file email. Instead, you can simply forward them a copy of their license file by email.

Further, you may wish to send your customers a default email message containing your own content, perhaps informing them of updates or new information relevant to the product(s) that they have acquired. To do this you would need to set up an auto-responder that is automatically triggered when the license email arrives in your inbox. You would need to configure your own email system in order to do this.

Please be aware that some email servers reject email coming from an automated source, because they choose to believe that it must be spam and you may need to provide a manual follow up where that happens.



5.12 Setting the Customer License Delivery

The Administration system is set, by default, to automatically send an email license file whenever a customer record is added to it. If your business model prefers to send license information directly from your web site to a customer, or, some other internal management process, then you should disable this option so the Administration system will NOT send the email license file to a customer when they are added to the system.

You should NOT use this feature unless you have purchased the eCommerce integration option.

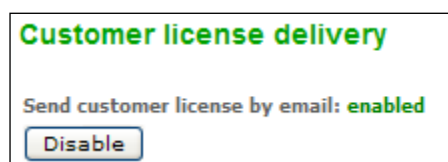
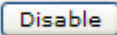
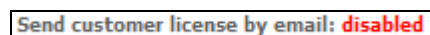
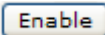


Diagram 37: Set Customer License Delivery screen

To disable license file emails being sent to your customers press the  button. The text will change to show you that this feature is now disabled:



To re-enable license file emails press the  button.



NOTE: Customer license delivery and ecommerce integration

In an automated solution we would expect you to be using the LockLizard eCommerce integration module in order to display customer license files on a web page automatically. If you are using this method of license file delivery, then most likely, you would want to disable the sending of license file emails by the Administration system.



Chapter 6: How customers use your products

Once you have created a customer account and your customer has received their registration email, they can simply install Lizard Protector Viewer by downloading the software and double-clicking on the exe file. This automatically installs and registers the linking of the .HSF file extension to the Viewer.

The registration email that is automatically sent to your customers is customized with the name that you used to register the Protector Administrator account with and your publisher email address (which [can be changed](#) in the Administration system). Before your customers can start viewing your protected products they must first register with you as a publisher. This can be done before they have been authorized to use any products.

Once a customer has installed and registered the Viewer software you can send them their protected product(s). They can then double-click on an HSF file in that product in Windows File Explorer and it will be displayed in the Viewer software (assuming of course you have granted them access to that particular product).

When a customer views one of your secure products for the first time, the Viewer software will check if it has the correct key to view it. If it does not, the Viewer will check with the Administration server to see if the customer has been granted access to the product (your customer **MUST** be connected to the Internet at this point).

If access is allowed then the decryption key will be transparently relayed (the customer will be unaware of this operation) to the client computer, and stored in the encrypted Protector Viewer keystore. If no key is available, your custom message for refused access (set when you protected this specific product) will be displayed telling the recipient how to contact you and purchase your products, or warning them that the product is not for their licensed use. You will need to determine the most relevant message.

Protected files are decrypted in memory and displayed in the secure Protector Viewer. Details of when the user's account expires (if ever) and when the product they are viewing expires (if ever) are displayed at the bottom of the Viewer window.



6.1 Product Issues

Should your customers need to contact you with an issue viewing protected products then you should advise them to select the option “Contact Service Support” from the Help menu in the Protector Viewer. By using this option important machine and version information will be sent to you, which can then, if necessary, be passed on to the LockLizard support team for further investigation.

Please note: LockLizard will only deal with support requests from publishers, and not from publisher’s customers. Support requests arriving from people who are not direct customers of LockLizard may be deleted without any response at all.



Chapter 7: Distributing Products

Delivering products that your customers have purchased is a critical part of the business process. But there are different models that you may need to consider for delivering products to your customers.

The two principal business process models you can use are 'push' or 'pull' which we can call 'sending products' and 'downloading products.'

7.1 Sending products to customers

This model is appropriate where you have very regular requirements to send products to a regular or specific group of contacts. These may be business partners or customers buying a regular service that you email or FTP to them.

If you are sending small products (newsletters, invoices, contracts) it may be efficient to send the product by email to the customer as soon as it is ready. This is efficient from an operational viewpoint because there is a high chance that the product will get to its destination and that the recipient is already enabled to read it.

It is also efficient in terms of a business process that fits this model. If you regularly send small and different information to different customers this model works well. It is NOT suitable where you have large amounts of information unless you plan to send them by CD-ROM or other physical media in the post. This is mainly because the majority of email servers will reject attachments over 3Mb in size. If you normally provide large amounts of information you should consider the next option because it is more practical.



7.2 Customers downloading products

In this model you are providing a service to customers. They are free to download any product from your web site but can only use those they are authorized to. Your model may be that potential customers are able to download and read a sample of the product you have for sale, and can download any product that they have bought or might wish to buy.

LockLizard secured products are fully encrypted so anyone can download them, but until they have purchased a license they will not be able to make any use of any downloaded information. This means that you can publish protected products on your web site with confidence that they cannot be used by anyone except customers who have paid to receive them. It therefore does not matter if prospects or customers have access to these protected products even before they have purchased them because until they are licensed they cannot be used.

This approach is more efficient when you have relatively large products, or where customers are confident that they can visit your web site in order to collect their products. As an analogy, it is rather like the customer visiting a shop in a mall and taking away a copy of the publication they want to read. It should certainly be chosen whenever you will have information that will be over 3Mb in size, or where you are offering a service where customers select the publications or products that they want to purchase and then wait to receive the access authorization once they have paid so they can use your product.



IMPORTANT NOTE: WINDOWS IIS SERVER

If you are uploading secure files to a Windows 2003 server running IIS then the file's MIME type must be registered on the server before it will allow the file to be transmitted through the web server. To do this, register the .HSF extension under the IIS Manager. For the MIME type select application/octet-stream.

Then restart the IIS server.



7.3 Summary

Some business processes, such as invoicing, purchasing, dealing with patient medical information, providing short newsletters, are best served with a 'push' process where you send the required product to the customer or authorized recipient.

Other models, allowing the customer (rather than a business partner, associate or similar) to select a book or a subscription and then download those items that are of immediate interest to them, purchase them and use them, are best characterized by the 'pull' model. This would also apply to large medical records such as transcription.

This does not mean that you do not advise your customers, by email, that a new version, update, or edition is available for them. That is perfectly sensible, and, indeed, necessary as part of your marketing approach. But it is a pull model because they choose to download the product rather than you sending it to them.

7.4 Customers downloading the free viewer software

The Lizard Protector Viewer software can be downloaded free of charge from either the LockLizard web site or your own one. You are also free to distribute the viewer software as you see fit.

The Protector Viewer contains automatic update detection. A check is made once a week with the LockLizard server to see if a new version is available. If a newer version is available then the viewer will invite the customer to update to this version.

Chapter 8: Conversion Tools

Lizard Protector comes complete with two conversion tools that convert your PDF and Word files to HTML, which can subsequently be protected using Lizard Protector.

8.1 Converting PDF files to HTML

To convert a PDF file to HTML, select Convert PDF from the Lizard Protector Administrator GUI File menu.

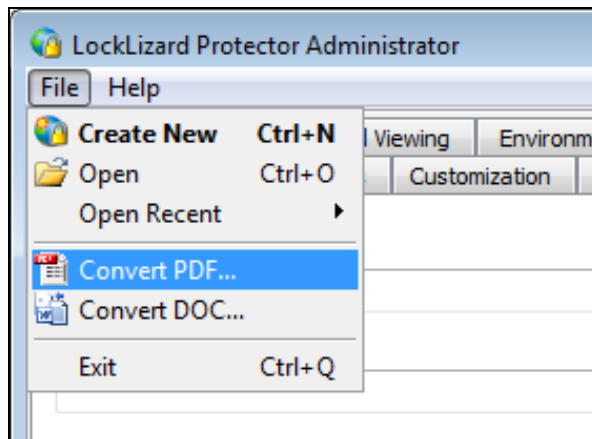


Diagram 38: Convert PDF to HTML tool

The following dialog is then displayed:

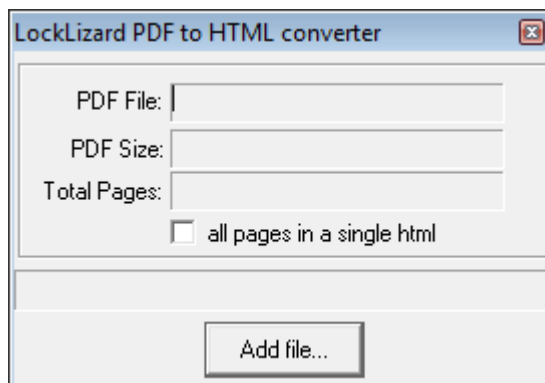


Diagram 39: PDF to HTML add file dialog



The PDF to HTML converter lets you convert your PDF document in one of two ways: into separate html files (one for each page), or as a single html file. If your PDF file contains many large images (over 1MB in size) then it will probably be more appropriate to save the document as separate html files because they will decrypt more quickly, as images are only loaded per page. If the PDF file is converted to a single html file then all the images are loaded when the HTML file loads, and hence decryption of the file may take a while. Images are always handled as individual jpg files.

To add a file to convert, press the  button.

The following dialog is displayed prompting you to select the PDF file you want to convert.

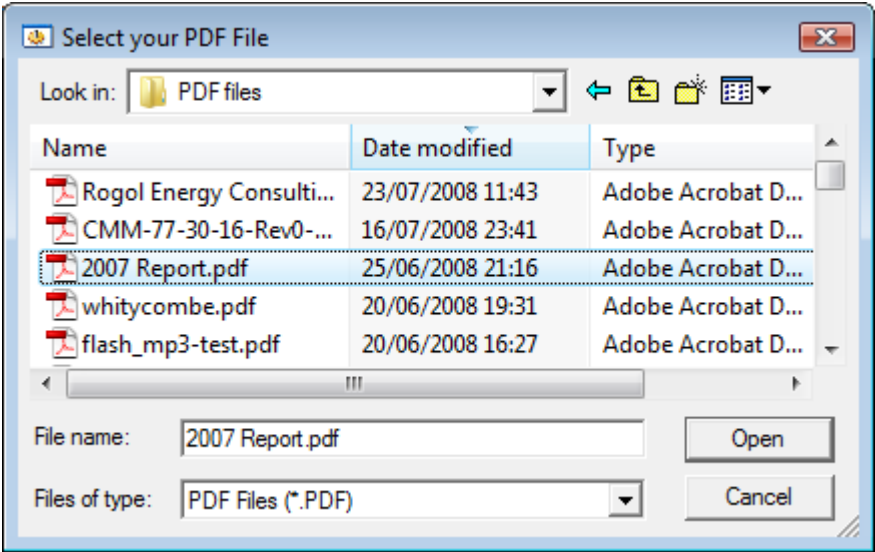
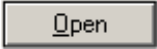


Diagram 40: PDF file selection dialog

Browse for the PDF file you want to convert. On pressing the  button the following dialog is displayed prompting you to select the file name for the converted file and where you want to save it.

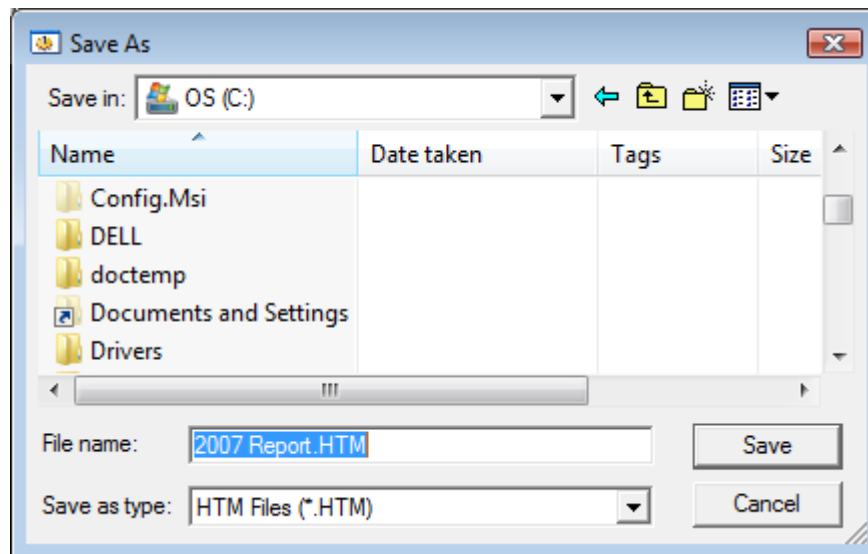
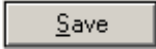


Diagram 41: PDF save as file selection dialog

On pressing the  button the conversion process begins. The following dialog is displayed showing you progress of the conversion.

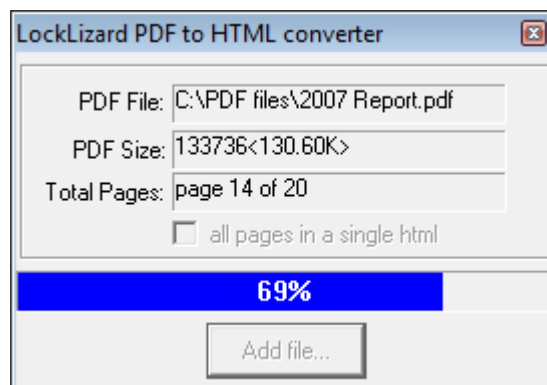


Diagram 42: PDF to HTML conversion progress dialog

Once the conversion process is complete the following dialog is displayed.

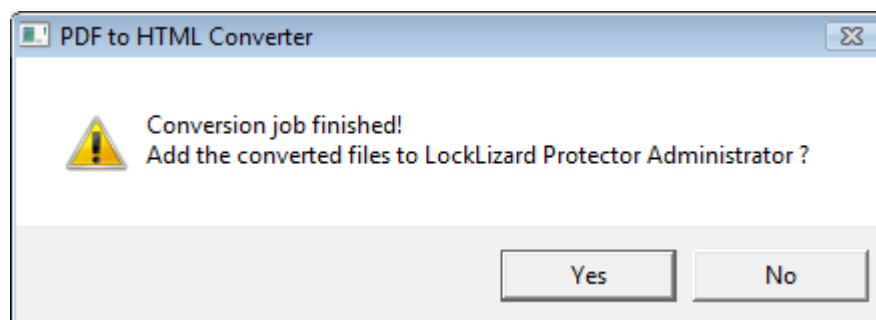
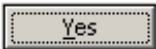


Diagram 43: PDF to HTML conversion complete dialog



By pressing the  button you automatically add the converted html files to Lizard Protector ready to protect as shown in the window below.

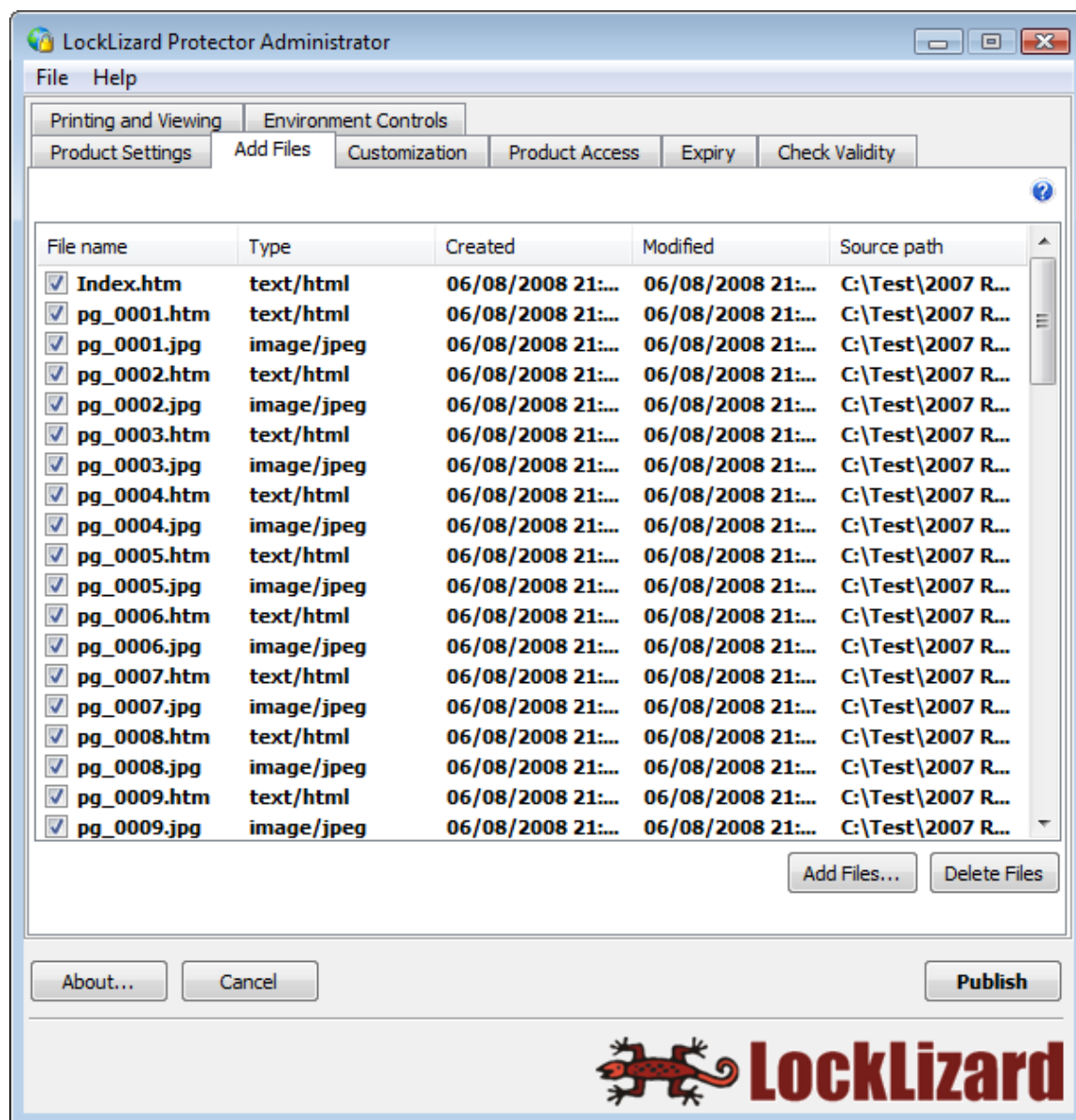


Diagram 44: Converted PDF to HTML files in Administrator GUI



8.2 Converting Word files to HTML

To convert a Microsoft Word (DOC) file to HTML, select Convert DOC from the Lizard Protector Administrator GUI File menu.

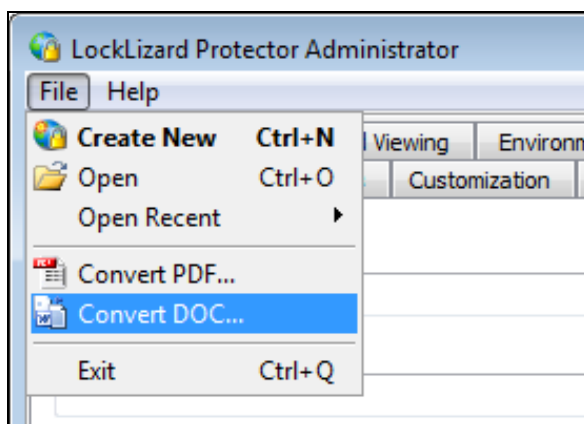


Diagram 45: Convert DOC to HTML tool

The following dialog is then displayed.

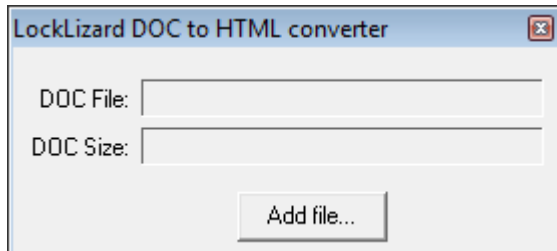


Diagram 46: DOC to HTML add file dialog

The DOC to HTML converter lets you convert your Word documents into a single html file. Images are always split into individual gif, jpg and png files.

To add a file to convert, press the  button. The following dialog is displayed prompting you to select the DOC file you want to convert.

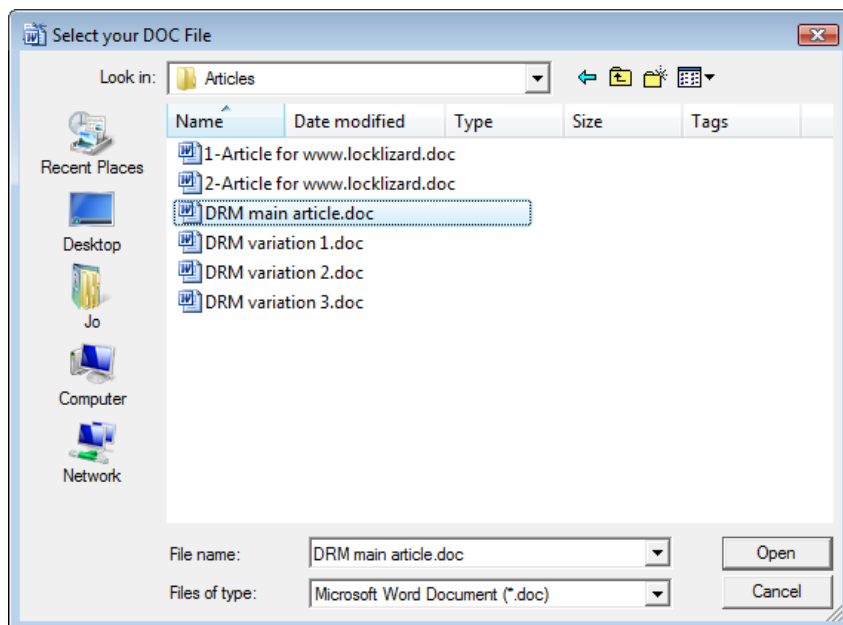
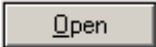


Diagram 47: DOC file selection dialog

Browse for the DOC file you want to convert. On pressing the  button the following dialog is displayed prompting you to select the file name for the converted file and where you want to save it.

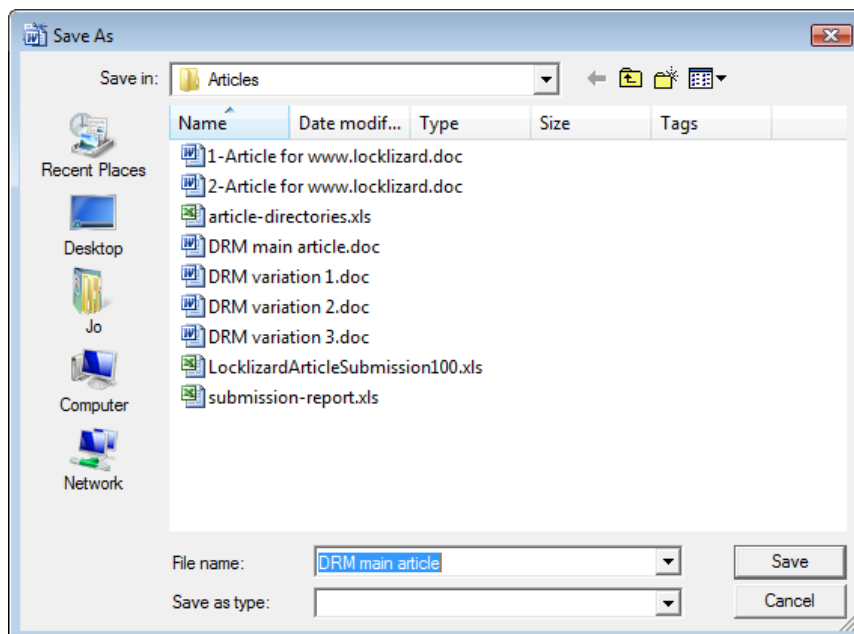
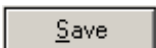


Diagram 48: DOC save as file selection dialog

On pressing the  button the conversion process begins.



Once the conversion process is complete the following dialog is displayed.

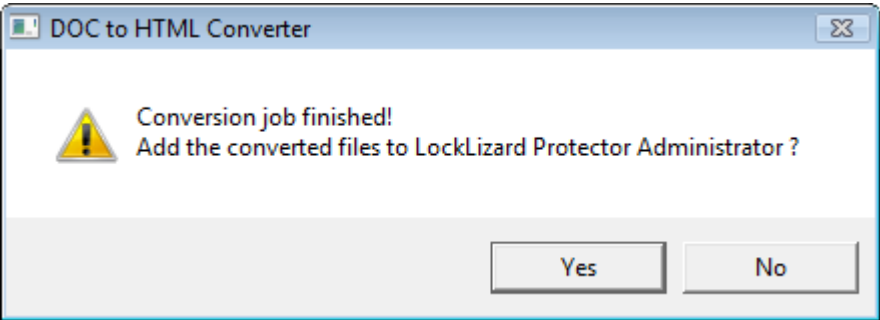
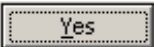


Diagram 49: DOC to HTML conversion complete dialog

By pressing the  button you automatically add the converted html files to Lizard Protector ready to protect as shown in the window below.

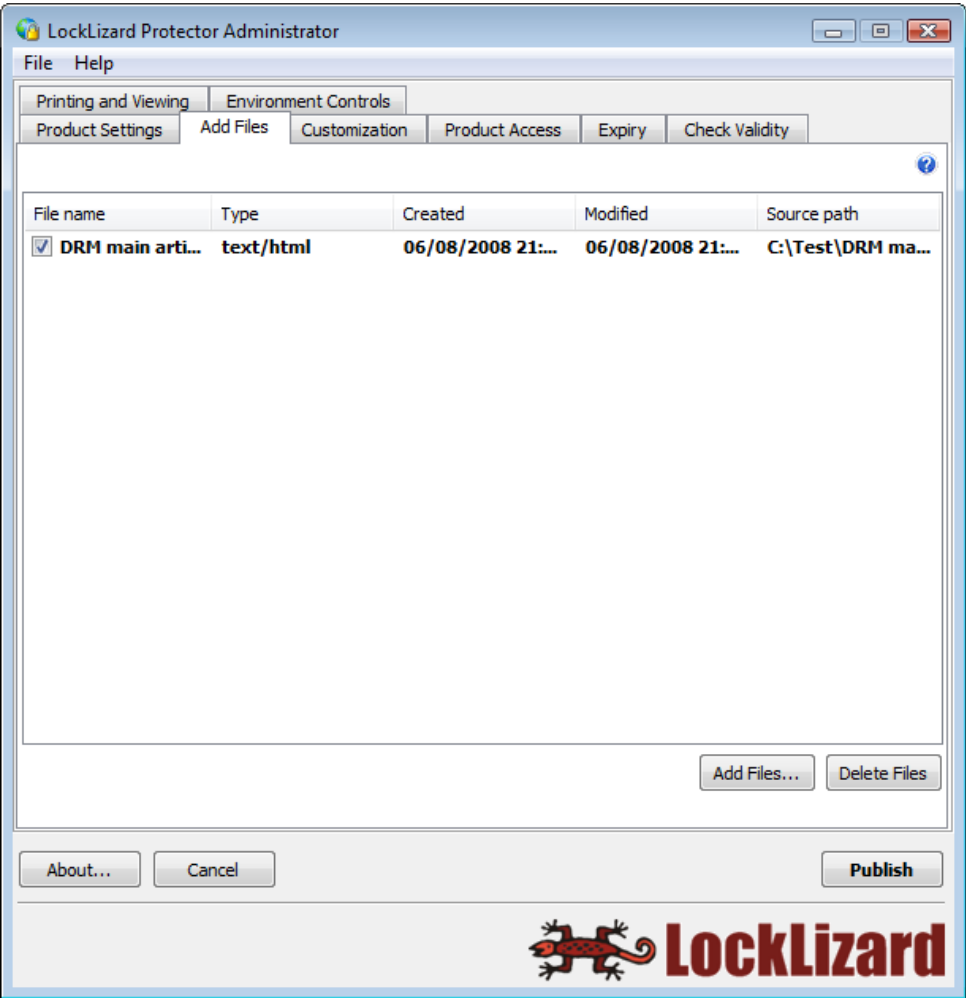


Diagram 50: Converted PDF to HTML files in Administrator GUI



Chapter 9: General FAQs

This chapter covers frequently asked questions on Lizard Protector.

9.1.1 How does Lizard Protector differ from straight file encryption products?

Whilst file encryption products protect information whilst it is in transit, or when stored on disk, they do not provide protection for the entire lifecycle of the information. Once a file reaches an authorized recipient, all protection is lost (the recipient decrypts the file), and the file can be forwarded, copied and viewed by unauthorized recipients if the authorized recipient decides to allow that. In addition, encryption products do not provide controls over file access rights - what a user can or cannot do with the file (print control, etc.) or file expiry. Encryption is an all or nothing strategy.

Lizard Protector constantly protects files inside and outside the network, online and offline, with strong encryption and digital rights management controls (product expiry and access rights), to provide persistent end-to-end protection throughout a product's lifecycle. Files may only be used by authorized users on authorized computers.

9.1.2 How secure is Lizard Protector?

Lizard Protector uses US Government strength encryption - the AES algorithm at its strongest strength, 256 bit. It would currently take today's fastest computer approximately 149 thousand-billion (149 trillion) years to crack a 128-bit AES key. Even with expected future advances in technology, AES has the potential to remain secure well beyond twenty years. For more information on AES please see NIST's [AES fact sheet](#).

In addition, we don't allow the use of third party plug-ins that can control your information. This ensures we are not open to weaknesses, either in the published APIs, or in security holes in third party applications. As a result we cannot be compromised by the inadequacies of plug-ins that could be loaded.

Information is only decrypted for viewing in a secure, controlled environment,



and is never made accessible unprotected. If a customer does not have a license they cannot view your protected information because they cannot decrypt it.

9.1.3 Is your application open to password attacks like web site password protected areas?

No. The keys required to decrypt protected files are downloaded transparently and stored encrypted on the customer's computer. There are no passwords to enter and therefore the system is not open to compromise or password attacks or by the user deciding to share their password with others.

An attacker is faced with a brute force attack of such a significant difficulty that they would need more than 20 years to gain access to a single product. (It would be cheaper and quicker for them to photograph every viewable screen of your product, assuming the authorized user would put up with that.)

9.1.4 Can I tell unauthorized people where to buy a license from automatically?

Yes. When you protect a product you specify that unauthorized users are shown either a free format text message or are directed to a specific URL (on your web site?). Here you might want to enter information on how to purchase, if you are selling products, or give details on contacting your administrator if the system is used for internal information control, or issue a warning about attempted breach of copyright.

This text / URL is shown whenever anyone with a viewer opens a product for which they do not have a license. The text is also visible at the top of each file in a product in a readable form if protected files are opened with a text editor or a similar application such as Notepad or MS-Word.



9.1.5 Can users change my security settings?

No. Once you have applied security settings to a product they cannot be changed by anyone except yourself. The settings become locked into the protected file in that product and remain in force at all times, even when your customers are using your products off-line (i.e. they are not connected to the Internet and therefore server based controls cannot be applied).

If you as the publisher want to issue the same product with different security settings (copying, printing, etc.) then you just save and protect the product again with the new settings. You can then send this newly protected product to your customers. Please be careful to note which of your products have which security settings so that you do not send out products with the wrong settings.

9.1.6 What is a product?

A product can be a single file, or multiple files that make up a document, all or part of a web site, training course, etc. It is a collection of logically related information.

9.1.7 How can I control product expiration and revocation once a product has been published?

Post publication product control is maintained through a combination of the use of expiry dates and the ability to revoke access to a product or access by a customer.

For example, you can publish a product that will expire in a month's time, so that your customers will not be able to view it once the expiration date has passed. Or, you can automatically revoke a customer if they leave a project, department or company or fail to maintain payments for a subscription.

Note that you new controls can only be imposed if you require the customer to verify their license with the administration server regularly for all products. If they do not have to verify their license again then the initial controls continue to be applied because there is no possibility of forcing a change to take place.



9.1.8 Why would I want to set customers to expire rather than products?

The system is flexible so you can do both. Sometimes you will want to control the length of time a customer is authorized to access information, sometimes you will want to limit how long information remains valid.

You may want customers to expire rather than products. That is because if a customer has subscribed to your service for (say) a year, so they are entitled to carry on viewing products they purchased after their subscription has expired. The administration system then prevents them from viewing products with dates outside their valid subscription period.

On the other hand, you may want to issue your customers or prospects with time sensitive trials or samples of products because you do not want them to carry on viewing a product that has passed it's expiration date (this may also be something such as a price list that has a validity period). In this case once the expiry date has been reached the product is no longer viewable unless they purchase a full copy from you or you issue them with a replacement for a new validity period.

9.1.9 We want to give prospects / customers free 30 day trials of our information. Is this possible?

Yes. When you create a product you can specify how long it will be before it expires - e.g. 30 days, 1 year, etc. When a customer registers they can then view your product for the time period you have allocated. Once this time period is reached, either the product will expire (if the product expires, it can no longer be viewed) or they will come back to you to purchase a license to continue viewing the product.

You can also set customer accounts to expire (say after a 30 day period). The difference here is that any products published during their subscription period (with end dates after their subscription expires) that you have authorized them to view can still be viewed after their subscription period has expired - they just won't be able to view any products published before or after their subscription period unless they come back to you to purchase a license.



So, to summarize, you can either expire products (and they are no longer viewable once they expire) or you can expire customers (and they can continue to view the products that they were authorized to view during their subscription period). Of course, if you have forced your customers to connect to the administration server before they can view your protected products then you can instantly suspend their account, and this prevents them from viewing any your products until their account is reinstated.

Please remember that for these controls to be effective you must require the customer to verify their license regularly with the administration server. If you do not require license verification then changes cannot be imposed

9.1.10 Can my customers distribute my protected products to others?

No. They can always send other people copies of your protected products - but other users will not be able to view them unless they have purchased a license and registered with you. For this reason, secured products can be freely copied and distributed, emailed or published on the Internet without any risk that an unauthorized individual could access the content.

In addition, even existing customers cannot necessarily view all your protected products. You decide which customers have access to your products and publications.

You can decide to assign products to publications for simpler management, so that customers with access to that publication can automatically view all products assigned to a particular publication (all products in that publication are encrypted using the same key, but remember that the date controls on products and the customer still apply) or you can publish products on their own (where each product is encrypted using a unique key). If your customers have not been licensed with the correct keys then they cannot view your information.



9.1.11 Do my customers have to be connected to the Internet in order to view my protected products?

No. You can allow protected products to be viewed off-line.

All product controls (preventing copying, printing, etc.) are retained within each file that makes up a product and therefore no Internet connection is required to enforce controls. Please be aware that an initial connection to the Internet is always required to validate the user license and to obtain the appropriate decryption key(s) when your customers first view each of your protected products for the first time.

Be aware that if your customers do not have to connect to the administration server thereafter to verify their license details you cannot impose changes to your controls.

9.1.12 Where can I publish my protected products?

You can publish protected products to the web, on CD-ROM, memory stick, or send them by email just like any other files. Because they are encrypted you are not taking any risks that they can be used unless you have issued licenses to the recipients. The fact that people can freely download your information does not make it accessible.

9.1.13 Is there a limit to the number of products I can protect, or number of customers that can receive protected products?

No. You can protect as many products as you want at no extra charge. There is no limit on the number of customers you can add to the system and the viewer software they download is totally free of charge.

9.1.14 Can I add existing customers to future protected products or publications?

Certainly. It is a simple matter of assigning the new product or publication to existing customers.



9.1.15 Do you host my secure products on your server?

No. You host them on your server, web site or network, or you can send them by email just like any other file. We never host either your unprotected information or the protected information. You always remain totally in control.

What we host is the licensing system through which you issue your customers with licenses and control who can access your protected products and publications. We never see either your unprotected files or the protected ones – they remain in your control at all times.

9.1.16 What software do my customers need on their computers in order to view my secured products?

They need to download and install our free viewer software – Lizard Protector Viewer. The viewer software can be freely distributed and published on your own web site if you wish to offer your customers that facility, or you can direct them to our web site if you prefer.

In addition, you need to set your customers up with an account on the administration / licensing server so that it can email them their license file. The registration of the license gives them access to the protected products and publications you have licensed them to use.

9.1.17 What happens when my customers change or update their computers?

9.1.17.1 Upgrading Computers

Lizard Protector can be re-installed on the same computer without you having to issue your customers with additional licenses. When a customer re-registers with their license, the viewer software checks with the administration server to see if it is the same computer the software was originally registered on, and if so, lets the license be re-used. So if your customers re-install their operating system for whatever reason they can re-install the viewer software and continue using the product as before.



9.1.17.2 *Changing Computers*

If your customers change computers then you will need to allocate them an additional license so they can install the viewer software and register with you again. Additional licenses can be added to an existing customer account using the 'Show Customer Accounts' link in the Administration system. See [allocating additional licenses](#).

9.1.18 How do I stop access to old versions of products?

If you update versions of products and you want to force customers to use the latest versions then you must set the product controls to verify the license either every time the customer views the product or every n days (depending on whether it is critical that the product expires as soon as the updated product is published or there is a few days leeway).

Then add the updated product either to a publication or to the customer, and delete the old product from the administration system.

Remember to send an email to customers affected to tell them to download the updated version (or include the update as an attachment).

Please be sure to delete the correct product record as deleted product records cannot be recovered.

9.1.19 I sell ebooks and want customer records to be automatically created on the administration system so that there is no delay in customers receiving their license emails after purchase. How can this be achieved?

You need to purchase our ecommerce integration module to achieve this. The system integrates with your existing ecommerce or shopping cart system and works by acting on HTTP PUT commands sent to the LockLizard licensing server. This creates the customer account and specifies what publications and or products they are allowed to access. For full details on the ecommerce integration module and commands available please email support@locklizard.com



9.1.20 If a customer purchases multiple products from my company using different names (e.g. J Smith and John Smith) so they now have more than one account on the administration system, will they be able to access the products they have purchased from the same computer?

Yes. Your customer must register each license (by double-clicking on it) on the same computer. Once they have done this they will have access to all the authorized products for those registered accounts. Both licenses will be active simultaneously on the same computer.

9.1.21 I plan to create a single customer account for each company that subscribes to my products and assign multiple licenses to that account (depending on the number of users within the company that I want to grant access to). Since multiple licenses are now available, how can I prevent companies sharing these licenses with other companies and thus gaining access to my protected products?

In order to achieve this you will need to restrict access to the LockLizard Licensing server based on IP address. You will need to install the LockLizard administration system on your own server and make sure that the server only permits access from and responds only to connections from the public IP addresses you have specified.

So if a user at Company A sent his license file to a user which is located at a LAN/WAN that does not use an authorized IP address then that non-authorized user would not be able to register the license at his own workstation because he would not be able to access the LockLizard licensing server. Please make sure that the IP addresses you specify are PUBLIC so that they cannot be emulated (public IP addresses are ones that are registered with the Network Information Centre (NIC)).



Chapter 10: Troubleshooting

This chapter covers error messages that may be encountered when you are using Protector Writer. Please also refer to the troubleshooting section in the Protector Viewer manual for viewer related issues.

The online knowledgebase contains the most up-to-date troubleshooting information and can be accessed at http://www.locklizard-license.co.uk/support/index.php?_m=knowledgebase&_a=view

10.1.1 I have created a customer account but they have not received their license email. Why has this occurred and how do I resend the license email?

Since the email is sent by an automated server, some SPAM filtering systems may block this and prevent the email from getting through. If this happens you will have to re-issue the customer license manually. Click on the 'Save to File' link in order to save their license file to disk and then manually email the file to your customer. The 'Save to File' link can be found on the customer record below their username and password (see diagram below).

Name	John Adams
Email	john.adams@locklizard.com
Username	0a4feae45bd516365042b441b20bd3b6
Password	d58825bd0737b533715f11375f0c8e5b
	Save to file

Diagram 50: Save to File link

10.1.2 Error Message “We cannot connect to the license server by Internet. Please check that you are connected, or that a firewall is not stopping this connection.”

This error message will be displayed if either a firewall or proxy is stopping Protector Administrator from getting to the Internet.

If you are trying to register the administrator application then the programs LL_Protector_admin.exe and adminpage.exe must have access to the Internet.



If you are trying to register the viewer application then the program LL_Protector_viewer.exe must have access to the Internet.

In the case of proxy servers, proxy settings are automatically picked up from Internet Explorer but there may be occasions when this information is incorrect or unavailable and you will have to manually enter proxy settings in the viewer software. Off the Windows Start menu > Programs > Lizard Safeguard PDF Writer (or Viewer) > Proxy Settings is where you enter this information. See [proxy settings](#).

Please note that if you purchased Lizard Protector before the 6th February 2007 then the LockLizard admin server IP address is 82.165.43.29 or <https://www.locklizard-license1.co.uk:8444/LockLizardLicensing>. This server uses port 8444 for secure traffic and port 8080 for non-secure traffic.

If you have purchased or are evaluating Lizard Protector after the 6th February 2007 then the LockLizard admin server IP address is 87.106.7.187 or <https://www.locklizard-license2.co.uk/LockLizardLicensing>. This server uses port 443 for secure traffic and port 80 for non-secure traffic.

Once you have registered the administrator / viewer software, you do not need the proxy settings again unless someone decides to change them.

10.1.3 When I am asked to register my license file it tells me “the server is unavailable”

The most likely reason for this is that you are using a proxy to access the Internet. Make sure you have entered the correct proxy settings and then try again. See [proxy settings](#).

10.1.4 When trying to register I get the error message “license check failed server returned 407 response code”

The most likely reason for this is that you are using a proxy to access the Internet. Make sure you have entered the correct proxy settings and then try again. See [proxy settings](#).



10.1.5 I changed the date when a customer account expired by increasing the expiry date but they still cannot access the products I have sent them.

If you change when a customer account expires (for example a customer subscribes to your publication for another year and you extend their account for another year) then these options only take effect when the Protector viewer next connects to the LockLizard Licensing server. This may be:

- a) if the product controls state that the user must connect to the Internet every n days or every time before they can view the product.
- b) if the user re-registers by double-clicking on their license file again.

Either of the above will cause the keystore to be updated with the new user account details.

10.1.6 I have protected a web site but the javascript menus are not displaying. Why is this?

Lizard Protector cannot follow a javascript code and automatically include all its file/script dependencies because they are loaded using variable names (those names can be any text and located anywhere on the disk). So you must manually add these dependencies to the protected product folder structure. Make sure that the javascript dependencies (images and scripts) are located in the output folder.

10.1.7 I have protected a web site that uses java applets but the applets are no longer working. Why is this?

Generally an HTML page loads a javascript which then calls a Java applet. Lizard Protector follows the link to the javascript, but it does not know about the applet (because the applet is not mentioned in the HTML). The files are used by the Java applet directly (so the applet is still looking for the original file extensions, not for the protected HSF files that were created by Protector Administrator).



As a result, even if you include the applet in the product files list (before protecting the product), the protected javascript output will still call the regular applet file (its original extension).

There are two workarounds:

change the HTML code, so all java dependencies are loaded by the HTML code. This approach is time consuming especially when you plan to protect many HTML files;

manually add the missing files to the protected folder structure (the output folder), by copying them from their original folder.

If you want to protect the Java applet source code, then the solution is to put the protected files on a web location and to publish the URL for that product to your customers. By doing this, all files are secured, because your customers can't access the source code from the server, and they can't view the source code of the protected files.

If you distribute the product to your customers so that they have physical access to all the files (i.e. sending them all the files on a CD), then your customers will be able to see the unprotected applet (or whatever dependencies are called/linked from the javascript). This approach is therefore not advisable if you have unprotected files that you do not want your customers to have access to.

10.1.8 I have protected a web site that uses javascript to display pop-up pages but they are not displaying. Why is this?

The solution is not to protect the pop-up pages. If the javascript code of the protected HSF file points to open a regular HTML pop-up page (or anything apart from a protected HSF page), then it will work fine. However, you must make sure that the unprotected pop-up files are there for IE to load them (so they must be copied across to the output folder).



Appendix 1. How to use guide - Small Publisher

A small publisher is someone who is selling something as an individual item or a series of separate items. These might include books, magazine articles, expert analyses, or similar.

The essential point is that the products are not sold as subscriptions where your customers are buying into regular deliveries of a report, a newspaper or magazine. If that better describes your business please see the guide for Large Publishers even if you are a small business by other definitions.

When managing one-off items you should always consider them to be single information. Don't create a publication and start assigning products to that publication. It will only add to your administration without giving any benefits.

1.1 Setting product controls

There are two keys to retaining good product control.

The first key to maintaining control is to give products clear and recognizable titles – something that both you and your customers can easily recognize. See [Appendix 4](#) for more details. The LockLizard system will also give them unique reference identifiers but these are not human readable, and are designed to ensure uniqueness in all our internal product references and used for integration with an eCommerce system.

If you have clear titles, then even if your list of information is more than a page you will be able to go through the list very quickly when you want to allocate a specific product to a customer.

The second key is to set the controls to be applied to the product to be those it is most commonly sold with. For instance, if you are selling a book it is normal for people who buy it to be able to read it forever (quite a long time) so it doesn't make sense to set an end date for a year away, and then have to amend it most times you sell it.

You can then vary the product controls if you want to give individual customers something different – a short product access period (one day) if you want to



give them a 'taster' before they buy, perhaps. You can later sell them the same product with no expiry date so that they can make full use of it.

1.2 Controlling customer records

Don't worry about adding the same customer to the database another time if you sell them another product. It doesn't matter because the administration system will recognize their original record. You can therefore give them access to the new product under their existing record. You can sort through customers by name or by eMail if you need to find their customer record. And if you want to create a new customer record for the same customer rather than go hunting for them you can do that without any complications.

You can also license a customer to be able to use more than one copy of the product to read, so maybe you give them two licenses so they can load the product onto two PCs (i.e. one at work and one at home) in order to use it.

1.3 Customer Management

If you sell books, then likely you and your customer will expect that they can read it from now on. Your customer is not going to expect to suddenly not be able to read the product they have purchased. So most of the time you are just going to license a customer to read your product forever. Although there are features in LockLizard that allow you to suspend customers it's not likely that you will need to use them in this case.

Copyright law, as it stands today, allows you control of your work for between 50 and 120 years after your death (good for the family even if you don't personally benefit). But people who buy a physical book expect to be able to read it at any time in the future, just the same as if you have bought a painting you expect to be able to see it when it suits you. So it's good practice not to try setting different rules unless there are very good reasons.

Do be aware that you must be very clear with your customers as to what their license actually is. If you do not then you may not have the right to impose the licensing terms that you claim. Licensing terms are precisely what you stipulate in a writing. Have a look in the next paperback you come into contact with to see what the physical print publishers state by way of comparison.



Appendix 2. How to use guide - Large Publisher

A large publisher is defined here as being anyone who is publishing one or more titles that appear daily, weekly or monthly. A large publisher is also an enterprise with a large book list. If you are publishing a book list rather than periodicals or subscriptions, the guide to small publishers may be more helpful.

This guide is oriented towards those whose bread and butter business is regular publications, and where their customers purchase subscriptions to publications that last for a period of time. These can be financial reports, weekly or monthly magazines, product documentation and updates and documentation or training courses. It also provides some suggestions over how to provide customers with 'one-off' copies of publication information, and how to manage that situation.

2.1 Organizing publications

If you already have a regular publication then you will have established what the publication titles are so in the licensing system you can simply enter those titles. Otherwise you will have to create meaningful publication titles for both you and your customers. See [Appendix 4](#) for more details. Now you will be able to allocate customers a publication and they will be able to receive and view any products that belong to that publication whilst their customer status is valid.

2.2 Setting product controls

There are two keys to retaining good product control.

The first key to maintaining control of products is to give them clear and recognizable titles. In the case of publications this may be a reference to the publication and the date of publication, rather than a title using words, although you can do that if your publications are well organized. Market Analysis June 04 or MrktAnal0604 may both be fine for your internal administration. You might use the actual original filenames if that suited your internal administration system better. The LockLizard system will have also given them unique reference identifiers but these are not human readable, and



are designed to ensure uniqueness in all our internal product references and for use in eCommerce integration.

Before you secure the product for publication you must allocate it to a publication in the administration system. This is to make sure that all your customers for that publication will be able to read it when they get their copy, without having any additional registration requirements.

The second key is to set the controls to be applied to the product to be those it is most commonly sold or distributed with. For instance, if you are selling a book it is normal for people who buy it to be able to read it forever (quite a long time) so it doesn't make sense to set an end date for a year away, and then have to amend it most times you sell it. Magazine publications, like books, usually entitle the customer to read them forever after purchase, so you may find it best to follow that model.

2.3 Controlling customer records

You may want to control customer records closely. This depends mainly on the integration between your back-end accounting system and the LockLizard publications control. The item of uniqueness is the eMail address, because this is unique to each customer. The customer name (and company, if used) need to be references that your back-end accounting system is able to recognize. The LockLizard system will allow you to have multiple records for the same customer if you wish to operate in that way.

You can also license a customer to have more than one copy of the product to read, so maybe you give them two licenses so they can load the product onto two PCs in order to use it.

2.4 Controlling individual information

The fact that you have allocated a product to a publication doesn't mean that only customers buying the whole publication can view it. You can also allow customers to have one-off access to any products that you have protected. And you can change the access rights that they receive from those given to people who have purchased the publication. So if you want to let them just read it for a week, you can make a one-off limitation for that, or requiring them



to have to be online in order to read it at all. These may be useful techniques where you are trying to cross-sell publications across your customer base.

You can protect the same product more than once, either giving it the same title or assigning it a new one. If you use the same title then the current product is updated on the administration system (as it still retains the same product ID). If you assign a new title to the product then LockLizard creates a new unique reference number for that product, so internally we are always able to distinguish between different products, even if they contain the same files. If you do not change the title when protecting a product that is already protected you may find it difficult to know which product has which controls.

2.5 Customer Management

If you sell books, then likely you and your customer will expect that they can read it from now on. Your customer is not going to expect to suddenly not be able to read the information they have purchased. So most of the time you are just going to license a customer to read your product(s) forever. Although there are features in LockLizard that allow you to suspend customers it's not likely that you will need to use them.

With magazines, reports and regular publications, customers expect to be able to read any product that they were entitled to during their subscription period. Like books, you probably need to set the product expiry date to never so that people who have paid for a particular product can use it.

2.6 Copyright law

You probably know a great deal more than we do about the impact of Copyright law on publishers. But it helps to recall that LockLizard services are not configured to allow for concepts such as 'fair use' (unless you have a specific policy for allowing libraries access to your publications, perhaps) which would apply to published information.

Also, LockLizard has not been configured at this stage to allow for free access once your copyright in the work ends. Whilst we would like to be able to offer that service, it is not available at this stage and you should make appropriate arrangements to satisfy that requirement by another means.



Appendix 3. How to use guide – Internal Administration

Although the LockLizard products appear to be focused upon publishers, an enterprise is also a major publisher of information internally. In most instances internal publications are similar to those of a book or magazine publisher, but with one very important difference. Publishers publish their material to ‘the public’ and their work becomes subject to the international laws of copyright. Internal publications, whilst they may have some copyright elements, are more usually trade secrets.

Trade secrets are much more important, for the enterprise, than copyright information. Trade secrets are used before patents are created. Trade secrets are used before formal reports are issued to the SEC or to analysts or banks, or lawyers. Although enterprises cover many confidentiality and secrecy issues in their contracts of employment they still need to implement adequate procedures and controls to support keeping a trade secret. If you are going to prosecute for either theft of a trade secret or theft of copyright information you are going to need proof that the person had access to the information so that you can show they had access and how they failed in their duty of trust or contract to you.

In many ways, internal product management is no different to running a publishing house, except perhaps that there is no accounting control for sales and customer management (unless you are using an outsourced administration model perhaps). Instead of customers you have departments or task forces or workgroups. These may align more with publication groups. The same goes for formal reporting groups, boards of management and investor relationships.



3.1 Organizing publications as internal structures

Instead of thinking about publications, think about the internal distribution requirements that you have for similar information. These may be based around a research project or around a litigation or around the accounting function.

So as an administrator you will need to be able to allocate specific information to internal groups who have a need to be able to use the product. Each of these groups is either an internal organizational unit, or one that is related to operational groups that the enterprise formally communicates with on a regular basis.

3.2 Setting product controls

There are two keys to retaining good product control.

The first key to maintaining control of a product is to give it a clear and recognizable title. When you are controlling internal files, the filename, version number and source (which department owns or created it) are useful references. If you have a document management system it will likely have a reference for the product that you should use to maintain consistency between environments.

LockLizard will generate a unique reference number for the product internally, but you need to use the title of the product for reference.

A product does not need to be allocated to an internal publication group, although in many instances you are likely to want to do that from the start since it will make administration easier. However, some products may be created for an ad-hoc group, and the individual members of that group can be allocated the product on a case by case basis if that happens. (If you do allocate the product to an internal group do remember that all the members of that group will be able to use the product wherever they get a copy from.)

The second key is to set the controls to be applied to the product to be those it is most commonly restricted to. For instance, if you are providing minutes of meetings or summaries of current research work for internal information there may be no need to let people print out the information.



If you do need to let specific individuals have greater rights then you can either allocate the product to them individually, or if the group is big enough, protect the product a second time for the other group, giving different default access rights.

3.3 Controlling staff (customer) records

You will likely want to control staff (customer) records closely.

Whilst LockLizard calls the staff customers, some of the people you may be sending controlled information to may be outside of your organization and are more like real customers than are internal staff. You can use the 'customer' record to hold the information about the member of staff or external recipient. The name and the email address are going to be the most important fields in the record since they are unlikely to change very often, if at all.

Because you are using the system to demonstrate internal compliance you will want to have logs of who has accessed information, and when they did so.

To achieve this level of logging you will need to specify that staff must be online to the administration server (which will be either on your internal network or be hosted by LockLizard on your behalf).

This has the benefit that you can also suspend or revoke customers or information at any time and with immediate effect.

3.4 Controlling individual information

The fact that you have allocated a product to a publication doesn't mean that only staff given access to that publication can view it. You can also allow others to have one-off access to any information that you have protected. And you can change the access rights that they receive from those applied when it is part of a publication.

So if you want to let someone just read it for a week you can make a one-off limitation for that, or requiring them to have to be online in order to read it at all.



Do be aware that you can protect the same product more than once. LockLizard creates a unique reference number with each protection, so internally we are always able to distinguish between information presented to us. However, remember that if you do not change the title when protecting a product that is already protected you may find it difficult to know which protected product is which.

3.5 Providing legal access

In any organization there are occasions when you will be required to provide access to some of your internal information to external bodies (government officials, accountants, lawyers, court officials and so on). Often this information is electronic rather than paper, and you want to be sure that only those who have been authorized to use them can do so. This may include being sure that after a certain time or date the information will no longer be accessible.

LockLizard controls are an ideal way of ensuring that whilst you are complying with granting lawful access to specific information, people other than those authorized cannot read or use that information. It also means that you have a record of all the information that have been provided, know who has actually registered to use them and when. You can later add to the information in that publication and send the protected files to them by email since your information is not going to be compromised because it can only be used by the authorized recipients.



Appendix 4. Picking a good structure for filenames

Choosing a good filename is probably one of the more challenging problems faced by any computer user. It represents the ultimate difference between man and machine. Man likes things that are easy to read and understandable. Machines like binary codes that are unique. The two things are just not the same.

The international standard ISO/IEC 15944-1 (2002) defines an identifier (in business transaction) as “an unambiguous, unique and a linguistically neutral value, resulting from the application of a rule based identification process. Identifiers must be unique within the identification scheme of the issuing authority.”

Well that looks like a bit of a mouthful from a standards body, but like most academic works it actually spells out pretty well what we have to achieve if we’re going to have names we can understand that the computer can also cope with.

But let’s look back at what the standard actually said before we get too depressed, and also think a bit about what we are trying to achieve. We are people, so we are going to use semantics because publishing is about words that means something.

If you only publish a dozen items a year, giving the filename the same name as the article makes entirely good sense, and if it’s a series just add the date (month/year?) of publication. That’s a rule based identification process! After all, author’s don’t repeat titles that often. So that solves the uniqueness.

It gets more difficult though if you are publishing hundreds of information (books, magazines, papers) because long and meaningful (and not very semantically neutral) names get too big and difficult to administer.



So a little rule based scheme might look like:

- First 3 characters – identity of the publication. This would be an acronym for the title.
- Next 6-10 characters – product title
- Next 6-9 characters – date published (either month, day, year or day, month year with the month being either two numbers or two or three letters and year being four numbers)
- Next 3 characters could be the author's initials.

By now you can figure out that you have run out of space to actually read the name. But you can search for it quickly. And you may prefer to put the date before the product title if you are more likely to search for something at a point in time rather than knowing the actual title.

So you have a couple of options to go for. Whilst hopefully the titles will mean something to you when you are searching for them, as well as meaning something to your customers when they are searching for them, which of course is the other side of the equation.

Customers are the recipients of information, and they need to know how to find it. They won't be able to search for the text in a product because it will all be encrypted. So the filename you pick must have some relationship with the title of the product as the customer sees it so that it is useful. So maybe the author's initials are not that important.

Anyway, you should now have a few working suggestions for filenames that both you and your customers will be able to find.



Appendix 5. Date and Time controls

Date and time are always handled by Protector in Universal Coordinated Time (UTC time), which is very similar to Greenwich Mean Time unless you study physics.

In the version 2 Administration system, when a product has an end date, access is ceased at 23.59 (UTC and NOT local time) on the day before you specified. Where global services are in use, publishers need to be aware that this time may appear to be quite different in different countries, although it is precisely the same time overall.

There are a number of additional points that publishers should keep in mind:

- Date and time are only verified when the Protector Viewer is opened and the product is opened;
- If the product is not closed and the expiration date and time are passed, that is not detected by the Viewer. It will only be detected when the Viewer opens a new product;
- Protector can detect any attempt by the customer to change the system date and time to a date and time that is earlier than the last occasion on which a product was opened by Protector. If this is attempted Protector will refuse to open products until the system date and time are set to later than the last access;
- If a customer alters the system date and time to a date and time that are after the last access to a product then unless there is a requirement to verify a license with the Administration system that date and time will be accepted as valid;
- Changes implemented by the publisher on the Administration server will only take effect on the customer if they must connect to the Administration server to verify their access rights, and until such time as customers are obliged to connect to the Administration server their existing rights remain unchanged.



Appendix 6. Protector Utilities

Lizard Protector is provided with a number of additional utilities. Below are descriptions of the utilities, including examples of when you may need to use them.

Some of the utilities are supplied as part of the Writer program and others are available as separately purchasable items. When a utility is a purchase option that is mentioned in the text below, and prices may be found on the LockLizard web site <http://www.LockLizard.com>.

6.1 Change Account Password

This utility is available from the Windows > Start > Programs > LockLizard Protector menu, 'Change Account Password'.

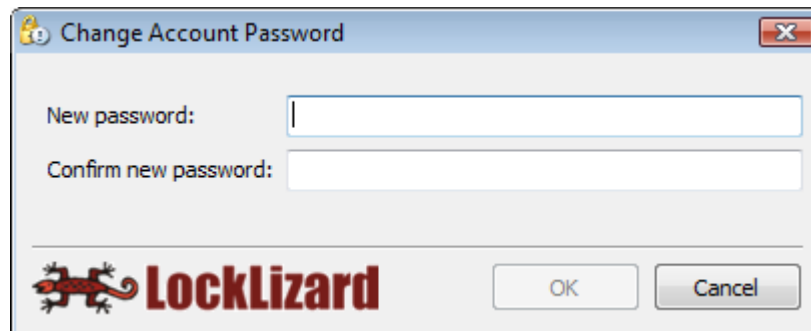


Diagram 51: Change Account Password dialog

There are a number of operational reasons why it may be necessary to change the access password to your Protector Admin account. For example, if an administrator in your company leaves or is re-assigned job roles then you may want to use this utility so they can no longer access the Admin system.

In the fields provided (see dialog above) you enter and then confirm a new password. If the password in the 'confirm new password' field does not match the entry in the 'new password' field then the OK button will remain grayed-out. The OK button will only be selectable if both the 'new password' field and the 'confirm new password' are an exact match.



We recommend that you use a password that is more than 16 characters long and contains letters, numbers and special characters such as * or & (and so on). You do not need to remember this password because, following a successful password change a new Protector administrator license email is sent to the email address that was entered when your Protector administrator account was created (please note that this may be different from the support email address you have defined). For security reasons this email address CANNOT be changed, and it is your responsibility to ensure that it is available to receive the new administrator license.

If you have more than one administrator using the system then they too will have to change the account password to match. They can either do this manually, following the procedure above (making sure they enter the same password that you entered), or they can register with the new license file that was sent by email. If they decide to register again with the new license file then please make sure they use the 'Remove Keystore' utility first to delete the keystore that was registered with the old password (see above).

6.2 Checking for Program Updates

This utility is available from the Administrator GUI Help menu > 'Check for Program Updates'.

Automatically, once a week, the Administrator software will check to see if a new update for Protector Administrator is available. However, you can also manually check for updates at more frequent intervals by selecting the 'Check for Program Updates' menu option. The administrator software will check if you are using the latest version and download and install the update if this is not the case.

You may want to use this facility if you are aware that a bug fix has been issued and you want to download the latest update straight away.



6.3 Remove Keystore

This utility is accessed from the Windows > Start > All Programs > LockLizard > Lizard Protector > Administrator menu, 'Remove Keystore'.

You may need to use this utility if you registered a Writer license for testing purposes, and later want to use the Writer software on the same computer but register it with a purchased license which you intend to go live with.

Also, following a successful account password change, you may want to use this utility on those computers where you are registering the new Writer license with the changed password.

NOTE: De-installing the Writer software does NOT remove the keystore so you must use this utility to remove the keystore files.

6.4 Ecommerce Integration

Whilst the Lizard Protector Administration interface is well suited to the smaller publisher, larger organizations may require full automation between their own applications (web site customer administration, credit card processing, internal document management) and the LockLizard Administration service.

To support automation and 'loose' integration, Lizard Protector provides a servlet that publishers are able to call in order to transfer information automatically into the LockLizard Administration system (i.e. user name, email address, publications and or products a customer is entitled to view), or to cause the LockLizard Administration to take a specific action, such as provide information about a customer record, list all products or publications.

You may want to use this utility for a totally automated system where no administrator input is required - through setting up users on the Administration system to specifying the publications and/or products they can use.

This utility is available for separate purchase. A separate user manual is provided setting out in detail the commands, and giving examples of usage, along with a sample PHP integration script for shopping cart integration. For more details see <http://www.LockLizard.com/product-add-ons.htm>.



If you would like to evaluate Lizard Protector's eCommerce module then please email sales@LockLizard.com.

6.5 Publisher Own Branding

For an additional fee, publishers can substitute their own branding/logo in place of the LockLizard logo currently displayed in the top right hand corner of the Protector Secure Viewer toolbar.

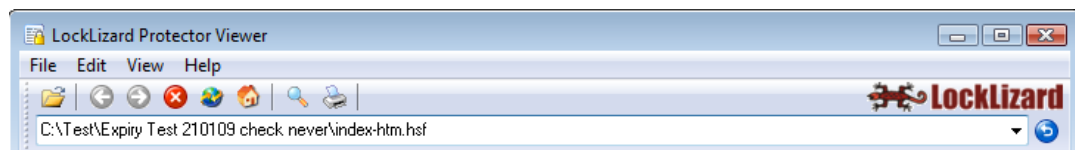


Diagram 52: Protector Viewer Toolbar

Publisher own branding is a valuable and flexible approach to helping publishers present their overall electronic image in the same way as their print image.

Publisher own branding uses a web link to an image containing whatever the publisher wishes to have displayed. That branding is transferred when the publisher's customer registers their license, and is updated whenever the customer's license is checked. So publishers are able to change their house style dynamically, and can even use special branding for periods of time if they so wish.

NOTES:

- The maximum image size is 200 (width) x 22 (height) pixels. If the image exceeds this size it will be automatically truncated by the viewer, and not stretched or resized.
- The logo branding image must be a valid URL path to a JPG image. Example:
<http://www.locklizard.com/Test/160x22.jpg>



- An Internet connection is required in order to download and change the viewer toolbar logo. If no connection is available, or the logo is not found on the specified URL, the default LockLizard logo will be used.
- Closing the current document or opening another document with no custom logo will reset the toolbar logo to the default LockLizard one.